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ORIGINAL LECTURES.

GASTRIC CANCER;

THE DIAGNOSIS BETWEEN CANCER OF THE STOMACH AND CANCER OF THE PANCREAS; RECTAL ALIMENTATION AND THE USE OF ARTIFICIALLY DIGESTED FOOD.

A Clinical Lecture, delivered at the Philadelphia Hospital, January 31, 1883.

BY JAMES TYSON, M.D.,

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(Reported by WILLIAM H. MORRISON, M.D.)

GENTLEMEN: Before making a personal examination of this patient, I wish to call your attention to her extremely cachectic appearance. This is seen not only in the pallor of her face, but also in the almost bloodless condition of her lips. The little bloodvessels, which, seen through the transparent mucous membrane, give the red color to the lips, are either almost empty, or filled with blood which is deficient in red corpuscles.

As to her history, she is forty years of age; is married; her husband living; she has had two children. Three years ago a hard lump appeared at the left angle of the mouth. This gradually ulcerated, and was removed two years ago by Dr. Wilson, at the Woman's Hospital. The growth, she tells us, was pronounced a cancer. The scar left by its removal is still visible, but there has been no reappearance of the disease *in loco*. Before the operation there had been a gradual failure of strength and weight, and instead of her general condition improving after the removal of the tumor, it seemed rather to continue to fail.

She was admitted to the hospital September 15, 1882. At that time she complained of dyspepsia. The indigestion was characterized by acidity and the disposition to discharge acid fluid. This was the only trouble complained of. The efforts to counteract this acidity by the ordinary alkaline mixtures were but partially successful, and it was only by the use of large quantities of lime-water and other alkalies, and the final adoption of a pure-milk and lime-water diet, that this acidity was relieved sufficiently to secure her tolerable comfort, and at present she does not suffer much from this symptom. There soon supervened upon this condition a tendency to nausea, and a disposition to vomit. In this vomiting there was not, nor has there been since, anything like regularity, nor a fixed relation to the meals. Large quantities have never been vomited, and this has never been a troublesome symptom. The matters discharged were usually an acid fluid and partially digested food; occasionally, however, she vomited matters different from those described, and to these I shall refer in a few moments. There has also been some constipation, not obstinate constipation, for the bowels are easily relieved by ordinary aperient remedies.

As to the second kind of vomited matters, she tells us that they consist of a substance resembling coffee grounds. She says that last night, for instance, she vomited a teacupful of this brown substance, which, in her own language, looks like the sediment which remains in the cup after the coffee has been drained off. This description is spontaneous, and, although we have never seen the substance, I do not think we dare doubt its nature. It is altered blood. The vomiting of this occurs at very irregular intervals, sometimes every week, and sometimes only once a month. She says that this peculiar vomiting occurred even before she came to the hospital. This, then, is her history so far as subjective symptoms are concerned.

On her admission we were impressed by her extreme pallor, and therefore frequently examined the abdomen for a tumor. She was also carefully examined for uterine cancer, but none was found, and there is no other disease of the womb. In the absence of anything distinctive in the symptoms, leukhæmia suggested itself, and I had the blood examined by Dr. William E. Hughes, who reports that he found in a cubic millimetre of blood 1,999,000 red corpuscles, and 15,000 white corpuscles—one white to about 133 red. The red corpuscles were also small, but the disproportion between the two kinds was not considered sufficient to justify a diagnosis of leukhæmia.

About the middle of November the looked-for aid to diagnosis presented itself—a tumor. This is now much more distinct than it was then. Even at a considerable distance you can see an elevation of the triangular space included between the lower border of the ribs and a line drawn from the angle of this border on the right side, through the umbilicus almost to the superior spinous process of the ilium on the left. In addition to this diffuse swelling there is a distinct tumor, nearly circular in outline and about two and a half inches in diameter, just to the left of the umbilicus; that is, a line drawn vertically through the umbilicus bounds the right edge of the tumor as a tangent does a circle, the mass of the tumor being to the left. I should have stated earlier that soon after admission, that is, about October 1st, there was not only tenderness in this region, but she also complained of pain independent of pressure, although no tumor was detected until a month later.

Let me briefly recapitulate the symptoms:

An intensely anæmic woman has suffered for some time from gastric symptoms, these symptoms being almost constant acid dyspepsia and a disposition to vomit, the vomiting occurring at irregular intervals and with no definite relation to the meals. Occasionally there has been vomiting of altered blood. There is a circumscribed tumor to the left of the umbilicus. The question as to what is the matter, is immediately answered by the suspicion, that it is a case of cancer of the stomach. There are, however, some doubts upon this point, and it is partly for the purpose of trying to determine this question that I brought her before you to-day. While many of the symptoms of cancer of the stomach are present, some of the most distinctive are wanting. One of these is obstruction of the pylorus. There is no symptom of obstruction at this situation. In the vast majority of cases of cancer of the stomach, the pylorus is the point affected—in fact, the pyloric orifice of the stomach is, next to the uterus, the most frequent seat of carcinoma. There may of course be cancer of the cardiac orifice with obstruction, but under such circumstances the food is regurgitated immediately after ingestion and little altered. On the other hand, when the obstruction is at the pylorus, the vomiting comes on a couple of hours or even longer after a meal. It may not occur for several days after

the food has been taken, but the longer the interval the greater the amount vomited. This is owing to the fact that the stomach becomes gradually dilated, and the longer the case lasts the less frequent is the vomiting. I recall an instance of cancer of the pylorus, in which this was particularly marked. In this patient the vomiting was sometimes at intervals of ten days, and then a bucketful was ejected. At the autopsy, there was found cancer of the pylorus with great dilatation of the stomach, from which I removed at the time of the post-mortem examination over a gallon of fluid. In the present case there has been nothing of this kind.

Let me again refer to the situation of the tumor, which lies to the left of the umbilicus. This, is, however, not inconsistent with the view that there is cancer of the pylorus. I have several times called attention to this fact. If you examine the books, you will find that they state that the most frequent situation of the tumor in cancer of the pylorus is in the epigastric region, a little to the right of the median line, and below the free border of the ribs. I do not know how many cases of this disease I have seen, but in at least half a dozen the tumor was exactly in the position occupied by the mass in this case. In the patient with the enormous dilatation just alluded to, the tumor was in the same situation, but a little to the right. At present, I recall no case in which the tumor has not been in the umbilical region. The situation of the pylorus in health cannot be said to be fixed, but it is probably most frequently to the right of the median line, and a couple of inches below the ribs. I cannot but think that writers have been misled by this normal position, to expect that a tumor of the pylorus is always found in the same place. But it must be remembered that the tumor soon acquires weight, and that the stomach is easily displaced; to such displacement dilatation often contributes. Apart from this, if you examine the position of the pylorus after death, in cases where there has been no disease of the stomach, you will find that it is not constant, and that it is as frequently to the left of the median line as to the right. So that, although we find the tumor in this position, we have in this fact nothing to diminish the probability of this disease being cancer of the pylorus; the strongest point against cancer of the pylorus being the fact that there is no obstruction.

What else could it be? The most likely disease after cancer of the stomach, would be cancer of the pancreas. I have seen two or three cases of cancer of this organ, in which the tumor occupied this situation. In a case which I had a year ago, there was a tumor in precisely this situation. The autopsy proved it to be cancer of the pancreas, as had been suspected before death. Is there anything which will help us in this dilemma? In the first place, in a large proportion of cases of cancer of the pancreas, there is jaundice; there is no jaundice in our patient. Again, in cancer of the pancreas there are symptoms of indigestion, which resemble those present in this patient more than they do those of typical cancer of the stomach, excepting the vomiting of blood, which does not occur in pancreatic cancer. In the latter there is a tendency to diarrhœa, and frequently the liquid stools contain fat; sometimes this is very manifest. In the case to which I have just alluded, the diagnosis was made from the presence of indigestion with irregular vomiting, and the characteristic condition of the stools. By the use of opium, bismuth, etc., the diarrhœa is checked for a time, but in a few days the liquid discharges seem to burst through a barrier which held them temporarily in check. In the patient before you to-day, there is but one of these symptoms, *i. e.*, indigestion. The stools have been carefully examined, but no fatty matter has been found; neither is there any diarrhœa. There is on the other hand, some constipation, although it is not as marked as in cancer of the pylorus with obstruction. Balancing these facts, therefore, the probabilities are in favor of the presence of cancer of the pylorus, notwithstanding the absence of the most valuable symptoms of obstruction.

Cancer involving other portions of the stomach does not produce a circumscribed tumor such as we have here. The cancers affecting the greater and lesser curvatures are diffuse growths and soft cancers, whereas those at the pylorus are circumscribed tumors and epithelial or schirrous cancers in nature.

The question of *treatment* is an important one. For although it is impossible to do anything to remove the growth, we should not, at the same time, be apathetic in the matter, and I am quite sure that a good deal more can be done than is commonly thought possible. As a rule, the food taken into the stomach is sooner or later rejected; but this is partly because the stomach is disqualified to prepare it; to reduce it, by digestion, to the liquid state it must have to enable it to pass through the pylorus. Now if we can digest the food partially or altogether, before it is put into the stomach, we obviate this difficulty. Still better will we accomplish our purpose if we can introduce it partially or wholly digested into the rectum.

The stomach has no use outside of the preparation of the food for digestion. It is not a vital organ in the sense that the heart and the lungs are vital organs. It is important so far as it prepares the food, but if the food can be prepared for absorption outside of the body, its necessity is diminished, as it also is, if we introduce this artificially digested food into the rectum. Or we may use both of these methods. We can, by the use of prepared food, diminish the labor of the stomach, and by using the prepared food by the rectum, we can relieve the stomach of all labor. This is being done of late by peptonized foods of various kinds. The food may be prepared by the *extractum pancreatis*, which is now made by a number of pharmacists. Three to five grains of the extract added to a pint of milk and placed at a temperature of 100°, will in one hour peptonize all the casein. A curd is first produced, which subsequently undergoes digestion. The addition of rennet will then not produce coagulation. Milk thus prepared makes little demand upon the stomach for digestion, and it can be introduced by the rectum with good effect. The peptonized milk has a peculiar bitter taste, and unless this bitterness is present the digestion is unaccomplished. The digestion will take place at a lower temperature than 100°, but it takes longer.[1]

I have had very satisfactory results from another method of preparing the food for use by enema, the only objection to it is that it is a little troublesome. I saw it suggested in 1876, but by whom I cannot now recall, and I have since frequently used it when the patient is to be maintained solely by enema. The plan is to take from one and a half to two pounds of beef with the fat removed, and from one-half to one pound of fresh pancreas. The pancreas is finely chopped and afterwards bruised in a mortar with tepid water at

[1] The following method, slightly modified from that usually recommended, after numerous trials by patients, has been found most satisfactory: Take one pint of skimmed milk, to which add one gill of water. Heat to 140° F. (a temperature at which the finger can be immersed for half a minute). After taking from the fire, stir in three grains of powdered pancreatine and fifteen grains carbonate of sodium. Place in a covered kettle or jug and roll up in a cosey (an ordinary gossamer water-proof coat answers admirably well), near a stove or register to keep warm. Let it remain thus for an hour and a half; it then resembles slightly thickened milk, but there is no curd. Pour it into a covered pitcher and set aside to cool in the open air. Thus prepared, it has the slightest perceptible tinge of bitterness, and is very palatable.

a temperature of 100°. It is then strained through a cloth. The juice thus obtained is intimately mixed with the meat, which has previously been chopped into small pieces. The product is next allowed to stand at a temperature of 100° for two hours; it is then ready for use. This amount suffices for two daily injections. The preparation decomposes very quickly, so that it has to be made fresh every day. I was surprised at what I accomplished by this method. In the man with the dilated stomach to whom I have referred, nothing could pass the pylorus, but during the use of daily enemata there occurred each morning an evacuation from the bowel as natural as though the patient were living on a mixed diet and digesting it properly. The extract of pancreas will probably answer as well as the method which I have described, but I have not had any experience with it.

In this connection, I want to call your attention to a little book by Dr. William Roberts, *On the Digestive Ferments, and the Preparation and Use of Artificially Digested Food*. After an account of normal digestion, he gives a description of the methods of preparing food by the use of these ferments. The method which I have just given you is not contained in this book.

The use of peptonized food is advantageous in many diseases, and especially in the diseases of children. Most cases of diarrhœa in children are due to indigestion, but by means of the extract of pancreas, we have the power to prepare the food for absorption thus lessening the labor of the stomach. The so-called *liquor pancreaticus* may be used for the same purpose, but I have had more experience with the extract.

By using this method of alimentation we can, in cancer of the stomach, prolong the life of the patient and make his condition less burdensome. But it occasionally happens that rectal alimentation does not appease the sense of hunger; and I have had patients who, in spite of all injunctions to the contrary, and who, knowing themselves that they would sooner or later reject it, would take food by the mouth.

It has been proven, over and over, that life can be sustained in this way. Not only have dogs been kept alive for months by rectal alimentation, but the same thing has been done with men. But where it is possible, the stomach should be made use of to some extent, and thus save the rectum.

ORIGINAL ARTICLES.

OBSERVATIONS ON OCCLUSION OF THE POSTERIOR NARES AS A RESULT OF NASAL CATARRH.

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(*Read before the Philadelphia Laryngological Society.*)

So much has already been written during the past few years concerning the pathology and treatment of chronic nasal catarrh, that it is with no little hesitancy I offer my contribution to its study.

I should scarcely have an apology for offering this paper, were I less convinced that a new era had arrived in the successful management of what was, and, by some, is yet considered an incurable disease. The spirit of incredulity has so completely possessed the minds of many, that any one professing to cure chronic nasal catarrh runs the risk of being considered an enthusiast.

In our humid and variable climate, affections of the nasal mucous membrane are all but universal. In some cases of nasal catarrh, but little appreciable ill-effect results; in others, the progress is steadily onward from year to year, to one certain end—nasal occlusion, partial or complete. Between the beginning and the result, in these latter cases, there is a period of discharge of muco-purulent or serous secretion, which increases with each acute exacerbation during the winter and spring, but lessens considerably during the summer, and in some cases is almost absent.

The course of chronic nasal catarrh of the *hypertrophic* variety (of which variety alone I wish to speak in this paper) is undoubtedly of long duration, extending over many years, and in many persons appears to have been the companion of their lives.

After considerable observation, I am of the opinion that no hypertrophic condition of the nasal mucous tract arises in any case except from a long-continued and persistent coryza. Hypertrophic change cannot be present without previous inflammation: the hypertrophic tissue is the *result* of the persistent irritation—the *effect* of an ever-active *cause*.

Only during the last few years has the rapid development taken place in our knowledge of diseases of the nasal cavities.

To native investigators we are indebted for much of the advance in pathology and treatment, and, as a clearer understanding of the true anatomy of the parts has obtained, the pathology has become so clearly established, that the mind has no alternative but to accept it.

The *peculiar* anatomical characteristics present in the mucous membrane lining certain portions of the nasal cavities, were prominently pointed out by Kölliker and by Kohlrausch twenty-nine years ago, who described, in the sub-mucous layer, what they termed venous channels, great in size and very numerous—out of all proportion to what were known to exist in other mucous tissue. Kohlrausch's discovery was not attended by any practical results, because this anatomical knowledge was far in advance of his time, particularly as to its bearing upon nasal catarrh.

Twenty years after Kohlrausch had made his observations, Dr. Bigelow, of Boston, made a much more elaborate and successful study of this peculiar anatomy. While Dr. Bigelow's observations confirmed those of Kohlrausch, as to the enormous venous channels in the sub-mucous layer of the nasal cavities, he also proved that these sinuses constituted a true erectile tissue, such as is most clearly observed in the corpora cavernosa, capable of dilation and contraction.

Bigelow's investigations have been repeatedly confirmed by observers in recent years. To these later observations are we indebted for refreshing our memory concerning this unique structure, and most of all, concerning the practical bearing which this information has had in building up so clear a pathology.

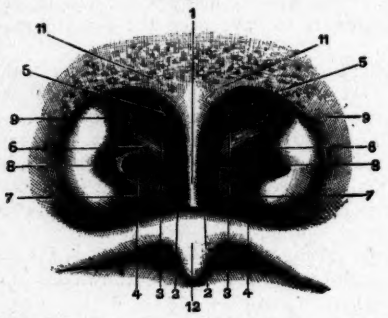
If, then, we keep a clear understanding of the anatomy of the mucous membrane lining the nasal cavities, the conditions found in hypertrophic disease are readily understood.

In examining cases of long-standing nasal catarrh, we are almost certain to find hypertrophic changes most clearly defined in those portions where the erectile tissue is most abundant—over the turbinated bones and the vomer.

It is my purpose to limit these observations to that portion of the nasal tract visible in the rhinoscopic mirror, viz., the posterior nares.

If we examine the image of a normal posterior naris, as seen in the rhinoscopic mirror, we will observe a picture somewhat resembling Fig. 1.

FIG. 1.[1]



Rhinoscopic image of normal posterior nares. (Seiler.)

1. Vomer. 2. Free nasal passage. 3. Superior meatus. 4. Middle meatus. 5. Superior turbinated bone. 6 Middle turbinated bone. 7. Inferior turbinated bone. 8. Orifice of Eustachian tube.

In these openings are seen the posterior ends of the lower and middle turbinated bones, slightly scrolled and slanting, with their mucous covering; occasionally we get a view of a portion of the superior turbinated bone. Dividing these two openings we see the posterior portion of the vomer, wedge-shaped, with clearly defined surface gradually tapering to a narrow edge, as it joins the floor of the nose. Considerable spaces are observed between these turbinated bones, and between them and the vomer.

FIG. 2.

A. Superior turbinated bone (normal). B B. Hypertrophied tissue over middle turbinated bones. C D. Hypertrophied tissue over lower turbinated bones. E E. Hypertrophied tissue over vomer. F. Free surface of vomer. G G. Eustachian tubes.

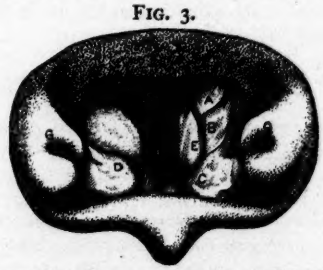
If we now contrast this picture of the normal posterior nares with one such as is sometimes observed in cases of long-standing nasal discharge, a marked change will be noticed.

[1] This cut was kindly loaned by Dr. Seiler, taken from the second edition of his Handbook.

Fig. 2 illustrates what is often seen in the rhinoscopic mirror in a case of nasal catarrh of long duration.

CASE I.—The patient from whom this drawing was taken was a man twenty-six years of age, of good parentage and of fair health. His history showed that he had always been easily affected by atmospheric changes, and that the nasal tract suffered most from these changes. For twelve years he remembered having a discharge from his nostrils, which, however, gave him but little concern. During the summer solstice the discharge was much lessened. Respiration had always been good, according to his statement, and at no time was mouth-breathing necessary; no attacks of asthma had ever occurred. For some years constant efforts to clear his throat have annoyed him. The post-nasal discharge was greatest when he became excited, and during the early part of the day. The secretion from the posterior nares was viscid and difficult of removal. Rhinoscopic examination revealed the conditions as seen in Fig. 2. Enormous hypertrophy of the soft tissues over the vomer on each side, extending its entire length; much greater above than below. The posterior end of the lower turbinated bone greatly hypertrophied on the right side, less on the left side; diffused thickening of the posterior end of the middle turbinated bone on right side. An hypertrophy resembling a collar projecting from the outer wall of left posterior opening, on a line with the middle turbinated bone, and springing from its outer portion. It will be noticed that on the right side, the spaces belonging to the posterior opening are so encroached upon by the hypertrophies that nothing but a mere fissure remains unoccupied; so that, practically, the right posterior naris is occluded, and can afford but little facility for the passage of atmospheric air during

FIG. 3.



A. Hypertrophied tissue over superior turbinated bone. B. Hypertrophied tissue over middle turbinated bone (left). C D. Hypertrophied tissue over lower turbinated bones. E. Hypertrophied tissue over vomer, left side. F. Enormous swelling of the free surface of the vomer. G G. Eustachian tubes. Right middle turbinated bone shows diffused thickening.

respiration. The left opening is less encroached upon, sufficient air appearing to pass through for respiratory purposes.

CASE II.—Is faithfully represented in the drawing, Fig. 3, which shows the same hypertrophic changes, with modifications, as are seen in Case I.

A. H. L., æt. 36, native, married, has enjoyed remarkably good health all his life; belongs to a

wonderfully hardy stock, his father having died at a great age.

Fifteen years ago he first contracted an acute coryza, while exposed to very inclement weather. This coryza, which was severe in its onset, continued without abatement for fourteen years.

From the beginning of the attack he gradually grew worse, until, after years of annoyance, he was compelled to seek relief for the persistent and profuse nasal discharge. After many months of treatment, with but little mitigation of his disease, he abandoned all further medication, and resigned himself to his condition. For a number of years he endured his misfortune, continuing to grow worse. In the winter of 1881, he was compelled again to seek medical advice, when he came under my care. His condition was as follows: Profuse serous discharge[1] from both nostrils, which required the use of *five dozen* large handkerchiefs per week; the almost constant use of handkerchiefs was necessary, so persistent and so profuse was the discharge. Respiration was entirely obstructed on the left side; the right side allowed a small quantity of air to pass through it, but not sufficient for respiration, which had to be carried on through the mouth. Extraordinary attacks of sneezing[2] often supervened, lasting for hours. These attacks of sneezing left him exhausted, and frequently occupied hours which were necessary for rest. In addition to this his nights were broken by repeated attacks of asthma, rendering it necessary for him to seek an open window for freer respiration. Attacks of intense itching in the ear occasionally occurred. Thick tenacious mucus escaped from his post-nasal cavity, causing gagging, with oft-repeated hawking to dislodge it.

His voice was flat and nasal in character. With such a combination of distressing symptoms the patient's condition was deplorable.

Rhinoscopic examination was rendered extremely difficult, by reason of great irritability of the fauces, and the soft palate was unmanageable from the patient's inability to breathe through the nose. After repeated efforts had been made, and an unlimited amount of patience had been expended, a satisfactory view of the posterior nares was obtained.

The appearance was unique in several particulars; marked hypertrophic conditions of the soft tissues over *all* the turbinated bones of the left side were seen; the same conditions were present on the right side over the lower and middle turbinated bones. The vomer was greatly hypertrophied on the left side. A most peculiar condition of the vomer was manifest, which I have never seen in any other case. In place of the wedge-shaped vomer, with the hypertrophy some distance within its free margin (as is seen in Fig. 2, and as is usually noticed), there was an entire change in the shape of the vomer, its normal outline being lost in an enormous infiltration, which extended upon all sides; the lower portion, where it joins the floor of the nose, was increased so much that it appeared of the same breadth as above, while the infiltration was flush with the free surface of the vomer. This swollen tissue was regarded as an infiltration or congestion, caused from obstructed circulation, which was produced by pressure of the hypertrophies conjoined with the effect of an ever-existing rarefaction in the post-nasal space. Another most remarkable condition present in this case was an undoubted hypertrophy of the *superior* turbinated bone on the left side. The possibility of such a condition has been denied by very excellent observers, and to me was of so great interest that I made repeated examinations, lest an error in observation should occur. That this condition was present is indisputable. It is faithfully given in the illustration (Fig. 3).

The treatment of these two cases was in the main alike. As has been shown, the same pathological conditions existed in both. The treatment was essentially *surgical*. In my judgment, *successful* treatment in hypertrophic nasal catarrh can be no other than *surgical*. Whatever treatment of a non-surgical character may be instituted, it can be considered as but an adjunct, and secondary to the demands of these cases. I believe that treatment consisting of the usual medicinal remedies, applied in whatever manner elected, is futile for the *cure* of hypertrophic catarrh, and does, at best, but temporarily relieve the distressing symptoms of cases where the hypertrophic change has progressed but little. But in cases of marked degree, even where respiration can be normally carried on through the nose, any other method than prompt removal of all this redundant tissue is an illogical and irrational procedure. The treatment carried out can be well illustrated by way of example (Case II., Fig. 3). The nose in this case was extremely sensitive, and intolerant of manipulation. At each sitting, every attempt for many times was rendered but partially successful on account of prolonged attacks of sneezing, very often brought about by the introduction of the nasal speculum. All instrumental manipulation had to be done with the greatest delicacy and rapidity. As soon as an attack of sneezing supervened, all work for that time had to be suspended. After repeated sittings, the lower hypertrophy on the right side was engaged in the loop of Jarvis' snare and removed. This gave considerable relief to respiration on that side. The left side offered prolonged resistance posteriorly to the introduction of the snare, because of the impaction

FIG. 4.

of the hypertrophies in that orifice. After many fruitless endeavors, a passage for the wire loop was made, and the middle hypertrophy was removed, then the one over the vomer, then the lower one. Fig. 4 shows two views of the hypertrophy after removal from the lower turbinated bone.

[1] The serous discharge was greatly augmented by the presence of nasal polypi anteriorly.

[2] Partly dependent on the nasal polypi.

This made a marked change of the infiltrated vomer, which rapidly regained its normal shape and outline. As soon as the obstruction to the circulation had been relieved (by the removal of the hypertrophies), the hypertrophy on the superior bone decreased in size, and did not require any interference with the snare. After the removal of all these obstructions, the breathing through the nose became free, mouth breathing was no longer required; the attacks of sneezing subsided, and asthmatic seizures were banished. His voice became resonant and normal. After the snare had done its work, the galvano-cautery was employed to remove what general hypertrophic condition remained, to which the snare was not applicable. The amount of discharge gradually grew less during treatment, and finally became so little that a handkerchief was no longer a necessity. In cases of so marked degree as the above, I know of no method of treatment which would give such good results as were obtained in these cases by the use of Jarvis' snare, and the galvano-cautery.

The successful management of cases of hypertrophy of the tissues over the vomer *posteriorly* has always been considered difficult, because of the situation; but in the galvano-cautery we have a remedy which renders the treatment easy and successful, and all other procedures appear cumbersome and inefficient in comparison. In a few sittings a marked hypertrophy of the vomer, and the train of unpleasant symptoms attached to this condition, can be made to disappear. In my experience, no ill-effect has ever occurred. I have yet the first untoward complication to report.

To avoid secondary disturbances there are certain requisites, viz.: 1. A battery in perfect condition. 2. A very thin cautery knife. 3. Perfect adjustment to the part to be destroyed. 4. Contact of but a few seconds. 5. Thorough application of an antiseptic fluid to the parts cauterized.

LITHOTOMY AND LITHOTRITY IN THE MEDICAL MISSIONARY SOCIETY'S HOSPITAL, CANTON, CHINA, IN 1882.

BY J. G. KERR, M.D.,
OF CANTON, CHINA.

THE annexed tables present, in as condensed a form as possible, the operations for urinary calculus performed during one year.

Lithotomy in the Medical Missionary Society's Hospital, Canton, China, in 1882.

No.	Age.	Residence.	Occupation.	Duration.	Date of Operation.	Chemical Composition.	Diameter. In. In.	Weight. Oz. Dr. Sc.	Result.	Remarks.
1	38	Tsang-shing.	Farmer.	years.	January 2.	Urates.	2¼ x 1⅜	2 ½ 0	Recovery.	
2	6	Pun-yii.		3 "	" 18.	"	1⅛ x 1	1½ 0	"	
3	8	Tung-kun.		1½ "	March 10.	"	1⅛ x ½	0 2	"	Two small calculi.
4	10	Tsing-iin.		2 "	" 14.	"	1⅛ x ⅝	1 ½	"	Two calculi.
5	14	Piin-yii.		10 "	" 14.	"	2⅛ x 1⅛	2 0 ½	"	
6	10	Heun-shan.		5 "	" 19.	"		1	"	Small stone. Median section.
7	13	San-ui.		6 "	" 28.	"	2¾ x 1⅛	1 7 0	Died.	On second day. A very bad case.
8	22	Tsang-shing.	Farmer.	8 "	April 18.	"	1½ x ⅞	4 1	Recovery.	
9	10	San-ui.		2 "	May 29.	"	1⅛ x ⅞	5 2	"	
10	30	Hoi-ping.	Farmer.	6 "	" 29.	"	1½ x 1⅛	4 ½	"	
11	6	Ko-iu.		3 "	" 30.	"	1½ x ⅝	2 0	"	Two calculi.
12	18	Hok-shan.	Laborer.	10 "	" 30.	"	1¾ x 1⅛	1 0 1	"	
13	13	Nam-hoi.		8 "	June 8.	"	1¼ x ⅞	6 2	"	Two calculi.
14	7	Sam-shui.		4 "	" 8.	"	1¼ x ½	1 2	"	Two calculi.
15	33	Hoi-ping.	Farmer.	2 "	" 10.	"	2⅛ x 1½	2 5 2	"	
16	6	Tsing-iin.		3 "	" 13.	"	⅞ x ½	1 1	"	
17	25	Pun-yii.	Trader.	5 "	" 22.	"	2¾ x 1½	2 1 0	Died.	On eighteenth day.
18	7	Wai-chau.		4 "	July 4.	"	1 x ½	2 0	Recovery.	
19	55	Tung-kun.	Farmer.	3 "	" 8.	"	1¾ x 1	7 1	"	Crushed twice before cutting.
20	27	San-ui.	"	2 "	" 8.	"	1⅞ x 1¼	1 1 ½	"	Cut two years ago.
21	31	Tsang-shing.	"	1 "	" 9.	"		5	?	Taken home in a dangerous state from fever.
22	10	Pun-yii.		2 "	" 20.	"	1¾ x ⅞	3 1	Recovery.	
23	16	Hoi-ping.		11 "	August 3.	"	1½ x ⅞	4 2	"	
24	5	Pun-yii.		1 "	" 7.	"	1⅛ x ⅝	2 0	"	
25	11	Ko-iu.		1½ "	" 28.	"	1⅛ x ⅝	3 0	"	Two calculi.
26	13	Fa-iin.		5 "	Sept. 13.	"	1¼ x ¾	3 ½	"	Patient a female.
27	7	"		4 "	" 23.	"	1 x ⅞	2 1	"	
28	5	Pun-yii.		1 "	" 26.	"	1¼ x 1	5 ½	"	
29	15	Tung-kun.		1 "	" 28.	"	1 x ⅝	1 1½	"	
30	7	Nam-hoi.		2 "	" 28.	"	1⅛ x ⅝	2 1	"	
31	28	Fa-iin.	Farmer.	20 "	October 3.	"		1 1 0	"	Thirty calculi in sac, and one in cavity of bladder.
32	33	Kwong-sai.	Trader.	5 "	" 8.	"	1½ x 1½	7 1	"	Had severe hemorrhage.
33	8	Ko-iu.		1½ "	" 12.	"	1⅞ x ⅞	4 1	"	
34	6	Shan-tah.		1 "	" 12.	"	1½ x ⅞	2 2	"	
35	14	San-ui.		12 "	" 23.	"	1¾ x 1⅝	5 0	"	
36	41	"	Farmer.	2 "	" 23.	"	2 x 1⅝	1 6 0	"	Secondary hemorrhage twice.
37	35	"	Laborer.	2 "	" 25.	"	1½ x 1⅛	4 2	"	
38	39	"	"	1½ "	" 25.	"	1½ x 1⅜	7 2	"	
39	27	"	Trader.	20 "	" 25.	"	3⅜ x 2	6 0 ½	"	Bilateral.
40	28	Fa-iin.	"	7 "	Nov. 2.	Triple phos.	1⅜ x 1⅛	5 0	"	
41	25	Shau-tak.	"	4 "	" 9.	Urates.	1⅞ x 1⅜	5 2	"	
42	48	Fa-iin.	"	3 "	" 14.	"		1 5 0	"	
43	11	San-ui.		3 "	" 16.	"	1⅛ x ⅞	2 ½	"	
44	34	Shiu-hing.	Farmer.	3 "	" 18.	"	2¼ x 1⅝	2 1 1	"	
45	12	Ko-ming.		3 "	" 23.	"	1¼ x ⅞	2 1½	"	
46	7	Nam-hoi.		3 "	" 28.	"	1⅛ x ¾	3 ¼	"	Two calculi of equal size.
00					August 11.	"	1 x ⅞	1 1		This stone was in a urinary fistule.

Lithotrity in the Medical Missionary Society's Hospital, Canton, China, in 1882.

No.	Age.	Residence.	Occupation.	Duration.	Date of Operation.	No. of Sittings.	Chemical Composition.	Weight. Oz.	Dr.	Sc.	Result.	Remarks.
1	39	Sz-ui.	Farmer.	4 months.	January 18.	3	Urates.	1	0		Recovery.	
2	26	Tung-kun.	"	6 "	March 11.	4	"	3	2		"	
3	46	Pun-yii.	"	4 years.	" 16.	2	"	1	0		"	
4	34	Tsang-shing.	"	1 "	" 29.	9	"	5	0		"	
5	29	Shun-tak.	"	2 "	" 29.	4	"	2	1		"	
6	44	Ko-iu.	Trader.	10 months.	May 18.	2	"	1	2		"	Bigelow's.
7	47	Tsang-shing.	"	10 "	" 23.	1	"	1	0		"	
8	56	"	Farmer.	3 years.	June 6.	3	"	5	1½		"	
9	59	Tung-kun.	"	2 "	" 3.	2	"		2		"	
10	26	"	"	6 months.	" 27.	1	"		2½		"	
11	34	Fa-iin.	"	1 year.	July 19.	2	"	1	½		"	
12	64	Nam-hoi.	Trader.	3½ "	" 19.	4	"	1	0		"	
13	58	Shun-tak.	"	10 months.	August 3.	2						Unfinished. Probable death.
14	26	Tung-kun.	"	1 year.	" 7.	5	Urates.	1	0		Recovery.	
15	29	Sam-shui.	Laborer.	2 "	Sept. 7.	1	"	1	1		"	Bigelow's.
16	38	Nam-hoi.	Farmer.	1 "	" 9.	1	"	1	2		"	Bigelow's.
17	23	Tsung-fa.	"	1 "	" 9.	1	"		1		"	
18	65	Pun-yii.	"	1 "	" 23.	2						Unfinished. Almost relieved.
19	40	Fa-iin.	"	3 "	Oct. 18.	2	Urates.		2		Recovery.	Crushed one year ago.
20	61	Pun-yii.	"	2 "	" 31.	3	"	3	½		"	Bigelow's.
21	30	Hok-shau.	"	2 "	Nov. 2.	2	"	6	0		"	Bigelow's, twice.
22	46	Nam-hoi.	"	6 months.	" 14.	1	"	1			"	
23	36	Tsang-shing.	"	1 year.	Dec. 22.	1	"					Bigelow's.

It is to be remarked that in the population which furnishes these cases, bad hygienic conditions prevail, as is indicated by the fact that every boy operated on had to be treated for worms previous to the operation.

The season has not been a healthy one. Cholera, and a malignant form of fever prevailed during the autumn months; a few cases of both forms of disease occurred in the wards of the hospital. The fever, however, has not been violent in the city, but in some country districts it has been very fatal.

Chinese physicians never attempt to detect the presence of a calculus by sounding; and they have no instrument, either catheter or sound, by which it might be done. All the cases must therefore come to this hospital for the first examination, except a few who meet with pupils that have had some training here. Many patients spend years of suffering, before they know the nature of their disease, or of the existence of the hospital, where relief can be obtained. Large stones and all manner of complications are therefore met with, and many of them are not desirable cases to deal with.

Preparatory treatment is indispensable in most cases, and it is especially necessary to make a change of diet. The usual food of the country people is fish, fresh and salted; with salted vegetables. For this fresh meat, eggs and fresh vegetables are substituted, the staple food, rice, being allowed. With this regulation of the diet, and an occasional purgative or laxative, the digestive functions are got into healthy action, and if possible, all cystitis removed. Under such conditions, and with no complication in other organs, an operation for stone should always be successful.

In reference to the choice of operation, the lateral is performed in nearly all the cases of lithotomy. The median section has been used in two or three cases, where the stone was small, or where it became necessary to cut after crushing. The bilateral has been used in only one case, No. 39, because of the unusual size of the stone. The particular form of the incision, has in my opinion very little to do with the result of the operation; other factors combining to decide the fate of the patient.

Lithotrity is preferred in suitable cases, and in such as for some reason the knife is excluded. The Chinese are physically a smaller race than Europeans, and the urethra is too small in many cases, especially for Bigelow's evacuating tubes. These have been used in several cases with satisfactory results, but in the former part of the year the apparatus was not in working order. In one case with albuminous urine lithotrity was successful, when the use of the knife would doubtless have been fatal.

In most of the cases there was nothing worthy of remark but a few had features of interest, which may be mentioned. In eight of the lithotomy cases multiple calculi were found, the number being two in each of seven cases. No. 31 was remarkable in having one stone in the cavity of the bladder and thirty calculi in a sac. The sac was located just below the neck of the bladder, behind the prostate, and the incision opened into it. Examination per rectum gave the impression of one large stone, as was anticipated from the long period (20 years) during which the patient had suffered. The calculi varied in size from a bean to that of a chestnut, and were angular, with facets fitting accurately to each other, and as the sac fitted closely around them there could have been but very little motion. After the removal of all the calculi from the sac the single round stone was found in the cavity of the bladder.

One of the boys operated on was found, after being chloroformed, to have a urethra so small that no staff at hand would enter. A small sound was introduced, the incision in the perineum made down to it, and a grooved director passed into the bladder, on which the incision was completed.

In several of the cases severe hemorrhage followed lithotomy. For many years I have employed a tampon in the rectum as the means to control hem-

orrhage, and, in nearly every case, with satisfactory results. Sometimes it is necessary to give manual assistance for a few hours by pressing the tampon against the os pubis, and thus more effectually closing the track of the wound. From six to eighteen hours is long enough to let the tampon remain. The centre of a square piece of cloth, well oiled, is pressed into the anus, and a roller bandage put in gradually until a sufficient amount of pressure is made on the wound. An anodyne may or may not be required to allay tenesmus.

The last case given in the lithotomy list, but not numbered, was a man whose perineum and scrotum were burrowed with urinary fistulæ, in one of which the stone had formed. He also had a calculus in the bladder, but was too weak to undergo the operation. This is the second case in which I have taken stone from urinary fistulæ.

Lithotomy case No. 26 was a female, and is only the third case in about 850 operated on in this hospital. During the year another woman was admitted in whom a calculus was detected, but she was not willing to submit to an operation.

The whole number of cases of urinary calculus under treatment during 1882 was 104. Of these 12 remained in the wards at the end of the year; 2 died before operation, and the remainder either declined to be operated on, or were unfit for an operation, or deferred it to another time.

In the following tables, *C* and *D*, the cases are arranged as to age in decennial periods.

C. Lithotomy.

	Operation.	Deaths.
Under 10 years	13	0
10 years and under 20	15	1
20 " " 30	7	1
30 " " 40	8	0
40 " " 50	2	0
50 " " 60	1	0
Total	46	2

D. Lithotrity.

	Operations.	Deaths.
20 years and under 30	6	0
30 " " 40	6	0
40 " " 50	5	1
50 " " 60	3	1
60 " " 70	3	0
Total	23	2

[I am happy to be able to present the preceding record of Dr. Kerr's cases, which came to me by letter in answer to an oft-repeated request. Any one who knows the amount of labor done by Dr. Kerr in the Canton Hospital and dispensaries every year, will understand why he so seldom contributes anything for publication, beyond what is prepared for his annual reports. Few operators have removed as many stones from the human bladder as he, and his success has been such, as to encourage him very much in operating upon the Chinese, not only for the removal of calculi, but of morbid growths of a much more serious nature.

Dr. Kerr has now performed lithotomy 449 times, and lithotrity upon 168 patients; making 617 cases from whom he has removed vesical calculi. The late Dr. Fun Wong, his native assistant, operated upon 34 cases: and Rev. Dr. Peter Parker, during his term of service, prior to that of Dr. Kerr, performed lithotomy 37 times. Besides these, there were many cases of removal of urethral calculi; and an almost incredible number of stones have been removed from beneath the prepuce, and constitute a collection unequalled in the world.

Some of the calculi removed by lithotomy in the Canton Hospital, were so large that they required first to be broken before extraction. Dr. Kerr removed one of 6 oz. 1 dr. from a man of forty-three; another of 5 oz., measuring 3 by 2 inches, from one of twenty-eight; and two stones 2¾ and 2 inches, and 2⅜ by 1¾, weighing together, 8 ounces, from one of thirty; all of whom recovered. Dr. Wong removed one of 3 by 2 inches, weighing 4 oz. 5 dr.: patient recovered. Some of the largest calculi have been very long and irregular in shape; others quite symmetrical and oviform. Occasionally patients have died in the hospital from cystic disease produced by a large calculus long existing in the bladder, having entered in a condition making an operation impossible. Dr. Parker removed a calculus from a patient after death, which was 3½ by 2 inches, very curiously irregular in shape, and bound down by adhesions. The man was twenty-one; had had the disease seven or eight years, and died on May 18, 1850. Dr. Parker was in charge of the work of the Medical Missionary Society for seventeen years, and Dr. Kerr succeeded him in May, 1855. With the exception of about three years, he has been in active work in China since this date. As a surgeon, his experience has been great and varied, and could be made of much value to the profession, had he the time to publish some of his rare and remarkable cases.

Dr. Whitney, of Foochow, writes me that he has a class of five Chinese medical students, and Dr. Dudgeon, of Pekin, is publishing Kirke's *Physiology*, in the classical Chinese.—R. P. HARRIS.]

MEDICAL PROGRESS.

THREE CASES OF GASTROSTOMY FOR CARCINOMATOUS STRICTURE OF THE ŒSOPHAGUS.—A. KNIE (*St. Petersburger med. Woch.*, 1883, No. 2) reports three cases in which an early operation was performed with complete success, although one case died thirty-six hours after the opening of the stomach from perforation of the carcinoma into the left bronchus. In the other two cases the patients recovered rapidly after the operation and increased in weight, although before they had been steadily loosing weight under nourishment by the rectum. One case carried on his ordinary work for six months after the operation, and then, after paralysis of his left arm, died eight months after the operation; the other case was still living one month after the operation. No obturator was employed in the fistula, a simple drainage-tube with stop-cock being used; no eczema or escape of fluid was noticed.—*Centralb. f. Chirurg.*, March 10, 1883.

RESORCIN IN SIMPLE CHANCRE IN FEMALES.—M.M. LEBLAND and FISSIAUX give the details of six cases treated with resorcin (metadioxy-benzine). It is a solid, colorless body, with feebly aromatic odor, and

sweet, slightly bitter taste. Its solubility in water is 86: 100; also soluble in alcohol, ether, and glycerine. Exposure to light gives it a reddish-brown color. It coagulates solutions of albumen, and preserves them. It arrests fermentation and putrefaction in a remarkable manner. In solution of .50–1 to 100 it arrests the development of microphytes and microzoaires, and kills them. The adult easily takes ʒj–ʒjss in twenty-four hours. It is eliminated by the kidneys. It seems to be indicated in all cases in which carbolic acid is employed. In the cases referred to, the chancre was brushed over with a solution of resorcin, varying from a weak to a saturated ethereal solution. Rapid recovery resulted; two cases in twenty days, one in nineteen, two in twenty-six days, and one in twenty-seven. Resorcin, though as rapid a *cicatrisant* as iodoform, has none of its inconveniences.—*Ann. de Gynecol.*, Jan. 1883.

Explication of Metalloscopic Phenomena.—M. Burg has made an ingenious apparatus which enables us to record the successive modifications impressed upon the nervous system by metallic application. It consists of a scale, on which is a needle; above are written the normal sensibility and motility; below, anæsthesia and paresia; on each side, analgesia and amyasthenia. The spring which moves the needle is the nervous system. By the aid of his apparatus, M. Burg explains the phenomenon called *transfert*. This *transfert* he regards as the simple phenomenon of *balancement;* not that he wishes to create a new word, but because he thinks that the word expresses the idea better than *transfert*, which is doubly inconvenient, as implying an idea forced and difficult to believe—*à priori*, that metallic applications are useless in treatment.—*Le Progrès Méd.*, March 10, 1883.

Paralysis from Injections of Ether.—Dr. Arnozan has seen four cases in which paralysis followed deep subcutaneous injections of ether, and concludes: 1. That injection of ether into the muscles causes paralysis. 2. These paralyses are analagous to peripheric paralysis. They cause suppression or diminution of faradic excitability. 3. They pass away spontaneously, but very slowly.—*Revue de Thérap.*, March 15, 1883.

Gangrene of the Female Genital Organs in Typhus.—Petrone (*Ann. Univ. di Med. e Chirur.*, 1882, Hft. 11) gives the details of some cases, with reflections on the pathogenesis of this affection. In two cases it began with vulvar diphtheritis; in another with inflammation of Bartholini's glands and abscess formation. In Petrone's collected cases, the trouble appeared between the fifteenth and twenty-eighth day. In some the trouble was confined to the labia majora; in others, the vagina, or even the uterus, was affected. When the latter, two-thirds of the cases were fatal. In the remaining, there were narrowing or occlusion of the vagina, recto-vaginal fistulæ, etc. The treatment consists in the most scrupulous antiseptic precautions, tonics, nutritive food, etc.—*Centralbl. f. klin. Med.*, February 24, 1883.

Treatment of Granulations of the Conjunctiva and Cornea by Purulent Inoculation.—M. F. Terrier, having studied the pathological conditions of such treatment, after indicating the dangers, draws the following conclusions: 1. Inoculation is a good method for treating old conjunctival granulations with pannus. 2. It is indicated in complete, thick, pannus, ulcerations of the cornea; incomplete or wasting pannus contra-indicates inoculation. 3. It is justified in monocular pannus, granular or not. Inoculation must be made with pus of ophthalmia of new-born infants. 5. The ophthalmia produced should be healed methodically, injuries to the edges of the cornea being avoided. 6. Rational treatment, such as cauterizing with sulphate of copper or nitrate of silver, pomades of precipitated yellow oxide of mercury, insufflation of calomel powder, etc., is frequently necessary. 7. Exceptionally a new peritomy or iridectomy is indicated.—*Revue de Chirur.*, February 10, 1883.

Anthropometric Study from the Point of View of Fitness for Military Service.—Dr. Jansen reaches the following conclusions in regard to the expansion of the chest:

1. The weight of the body and the degree of expansion of the chest give the precise indications as to the state of vital resistance and aptitude for military service.

2. The thoracic circumference, taken between the two inspirations, gives no indication of real value.

3. The measurement of the chest should be taken above the nipples.

4. After having noted the chest measurement during the repose following a respiration, the tape should be kept around the chest, and a deep inspiration should be made; the difference in the measurements shows the amount of expansion.

5. The following may be given as means: Men fit for service; weight, 142 lbs.; weight, by half measure of height, about 14 oz.; chest measure, 34 inches; degree of expansibility, 1½ to 2 inches. Men unfit for service: weight, 112 lbs.; weight by half measure of height about 10 oz.; chest measure, 32 inches; degree of expansibility, less than one inch.

6. In many cases, men whose chest measure is less than half the height are perfectly suitable for service, and frequently men with large chests are unable to stand the fatigues of military service.

7. There is a constant relation between the bodily weight, the expansibility of the chest, and the height, but none between these and the chest measure.

8. Sailors, boatmen, blacksmiths, carpenters, and cultivators are most robust; weavers and colliers least robust.

10. Five feet one inch may be taken as the minimum height.

11. Recruits of good constitution had a mean weight of about 10 oz. by half measure of height; the degree of expansibility of their chests averaged one and one-fifth inch. The chest measure was not always half the stature, but never fell below 30 inches.

12. Militiamen of bad complexion cannot stand the fatigues of military service.—*Revue Internat. des Sciences*, February 15, 1883.

Extract of Guachamaca.—The *Guachamaca* is a tree growing in Venezuela; the active principle is contained in the bark and other parts of the tree. The extract, brown, resinous, resembling curare, is soluble in water, less so in absolute alcohol, and insoluble in ether and chloroform. The chief difference between its action and that of curare is, according to Schiffer (*Deutsche Med. Wochens.*, 1882, No. 28), that guachamaca rapidly affects the nerve centres, while that action of curare is slow. Schiffer's experiments on man have been few, and he has always administered it subcutaneously. In a case of spasmodic muscular contraction, he injected gr. ½ of the dry extract. In forty-five minutes a light sleep was produced, which lasted about three hours; the circulation and respiration remained normal, and reflex excitability was preserved during the sleep. Schiffer thinks that it may be used advantageously in convulsive disease, and that it will prove a useful hypnotic.—*Le Progrès Méd.*, March 17, 1883.

CAUSE OF THE FIRST SOUND OF THE HEART.—DR. SPIRIDION KANELLIS (of Athens) has brought out a new theory of the production of the first sound of the heart, according to which the sole causes are: 1. The vibration of the tendinous cords and the friction produced by the blood; which, after a sufficiently great pressure, makes a noisy irruption through the network formed by these cords during the ventricular contraction. 2. The friction of the blood against the inequalities of the ventricular wall, which is at that moment contracted. This sound, says Dr. Kanellis, lasts until the ventricular systole.—*Revue Scientifique*, March 17, 1883.

ANÆSTHESIA BY GALVANIZATION OF THE SUPERIOR LARYNGEAL.—M. BROWN-SÉQUARD has shown that carbonic acid placed in contact with the laryngeal mucous membrane produces anæsthesia by excitation of the terminal filaments of the superior laryngeal nerve. Galvanization of the nerve-trunk itself generally produces only a slight diminution of sensibility; but in some recent experiments made on the dog, he has produced complete anæsthesia by this means.—*Le Progrès Méd.*, March 10, 1883.

NEPHRECTOMY.—Professor D' Autona, of Naples, on the 28th of December, 1882, successfully extirpated a pyonephritic kidney by the lumbar incision.

IODOFORM IN ITALY.—Semmola, Rummo, Ciaramelli, and Bufalini have prescribed iodoform in chronic affections of the respiratory passages. Semmola administers the drug by the stomach, believing that it is eliminated by the mucous membrane of the respiratory tract, as proved by the fact that the fever diminishes, and the cough becomes less fatiguing. Rummo employs iodoform in the form of a vapor by inhalation, and in spirit of turpentine in a four per cent. solution; he believes that the turpentine reduces the irritating properties of the iodoform. He claims that the cough and expectoration are reduced, the râles become less numerous, and the general condition improves.—*Gazette Médicale de Paris*, Feb. 24, 1883.

NEW FORMATION OF ARTICULAR HEADS OF BONES AFTER SUBCAPSULAR PERIOSTEAL RESECTIONS.—DR. BAJARDI has made a series of experiments on dogs three months old, always choosing as the region for his experiments the lower extremity of the femur. The results obtained by him differ in some respects from those obtained by Wagner and Ollier, but confirm the results arrived at from resections of human bones made by Lüelle, Doutrelepont, Heinemann, Czerny, Weichselbann, and Jagetho. Dr. Bajardi arrived at the following conclusions: 1. Resection of an articular extremity of a bone, practised on a young animal, is followed by an exact reproduction of the part, provided that the periosteum and articular capsule be kept intact, according to Larghe's method. 2. The articular extremity thus produced is composed of spongy tissue, and a greater or less extent of its surface is covered with an investing cartilage. 3. The bony and cartilaginous portions of the new articular extremity are developed partly from the diaphysis, partly from the marrow, and to a limited extent from the connective tissue which covers almost the whole of the bony portion of the excised epiphysis. 4. The new formation begins primarily in the marrow, in the form of embryonic connective tissue, which becomes rapidly transformed into cartilaginous and osseous tissue. 5. The periosteum of the diaphysis, and the connective tissue which covers the osseous portion of the apophysis, do not take part in the process of development until a later period. 6. The articular surfaces of the tibia and patella, when left intact, may or may not be very considerably modified, according to the reëstablishment, or not, of the original conditions of movement and reciprocal pressure. 7. These modifications consist in proliferation of the upper layer of cartilage cells, consequent on the peripheral cells becoming atrophied; in dissociation of the ground-substance (fibrous tissue), consequent on cellular proliferation and atrophy; and in transformation of cartilaginous tissue into fibrous tissue. 8. These modifications always commence in the superficial strata of the investing cartilage, and more or less slowly reach the lower or deeper strata.—*British Med. Journal*, March 17, 1883.

EXTIRPATION OF THE LARYNX.—G. BENDAUDI reports the case of a boy, aged 10 years, in whom Riggi opened the larynx in the median line with the galvanocaustic knife, intending to remove a large polypoid growth. On account of profuse hemorrhage from the tumor, extirpation of the entire larynx was resolved upon, which was successfully performed with a galvanocautery knife without hemorrhage. The edges of the œsophagus were sewed into the wound, and an ordinary tracheal canula inserted; a sound was permanently left in the œsophagus. The case progressed without any febrile reaction and the wound was completely healed in 28 days, without any deformity of the neck; deglutition was not interfered with.—*Centralb. f. Chirurg.*, November 11, 1882.

INJECTIONS OF CARBOLIC ACID IN SCIATICA.—M. SCHRUMPF has communicated the following to the *Société Médicale du Haut-Rhein* (June 11, 1882): Carbolic acid introduced into the cellular tissue in strong solution produces disorganization or suppuration. In weaker solutions, however, of one to three per cent., if the quantity injected does not exceed gr. iss, no accident will result; on the contrary, this treatment is not only palliative, but curative. The injection is soothing; in this respect being distinguished from those for which Luton sought to substitute simple water, morphine, chloroform, ether, alcohol, salt water, nitrate of silver, etc. As a rule, several injections are necessary to entirely relieve the pain. The usual quantity for injection is about one-third or one-half grain (the acid being dissolved in alcohol). Schrumpf has obtained excellent results in sciatica, lumbago, pleurodynia, coccygodynia, and cervico-brachial neuralgia. Idiopathic neuralgiæ alone seem favorably influenced by this treatment. Those caused by a medullary affection, or compression or an articular affection, or deep or superficial varices, are uninfluenced by these injections.—*Revue de Thérap.*, March 15, 1883.

PULMONARY SYPHILIS.—M. BRISSAUD has recently (*Le Progrès Médical*, No. 3, 1883) summed up our knowledge of this subject in a clear and concise manner. We may say at once that he deals only with acquired syphilis, and not with inherited. As in the case of the liver and other viscera, syphilis may give rise to two different lesions—one a fibroid change, mostly superficial, in fact, involving the pleura as much as the lung tissue proper; the other a gummatous change, almost always more or less deep seated, and often surrounding the large bronchi. These gummata are usually few in number, of firm consistence, a yellowish color, variable in size, somewhat drier than most morbid products. They are usually surrounded by a certain amount of fibroid change. The glands about the bronchi at the root of the lung become enlarged, caseate, and sometimes ulcerate into the bronchi. M. Brissaud is inclined to believe that this degeneration of the glands is, in the majority of in-

stances, the primary lesion rather than a specific inflammation of the lung, and he points out that the disease is most common in the immediate neighborhood of the root of the lung. As regards diagnosis, the chief difficulty, of course, is to distinguish between a syphilitic and a tubercular lesion. They are equally destructive; they give rise to analogous symptoms, either inflammatory or congestive. But they differ in the part affected, and this is the most important diagnostic point. It has often been said that hæmoptysis is less frequent and less copious in syphilitic than in tubercular lung affections; but this is not a sign upon which any reliance can be placed. A last point, and a very important one, is that when a person has died of a syphilitic affection of the lungs it is almost certain that other evidence of syphilis will be found either in the kidneys, the bones, or the skin. M. Brissaud thinks that the reason these affections are not better known is because they yield so readily to the proper treatment.—*Med. Times and Gazette*, March 24, 1883.

Capsular Incision in Reduction of Hip-joint Dislocation.—This case occurred in the service of Dr. Polaillon, at La Pitié. A dorsum ilii dislocation was diagnosticated. Four separate attempts at reduction were made, under chloroform. By the first, the head of the femur was thrown into the thyroid foramen, from which subsequent attempts at reduction proved unavailing. Muscular reduction could not be attained under profound chloroformization. On the forty-sixth day after the accident, Polaillon reduced it by incising the capsular ligament and breaking up the adhesions. Minute antiseptic precautions were carried out, including drainage. Death followed on December 20, 1882, four days after the operation. The patient was alcoholic. At the autopsy, the lungs were found congested at the base; heart fatty; liver enlarged, fatty, and suppurative; kidneys yellowish and fatty. The head of the femur was found in the cotyloid cavity; round ligament ruptured. This is the third operation reported of the kind. The first, by Volkmann, in 1876 (*Berlin. klin. Wochensch.*, No. 25, p. 357, 1877); the second, by MacCormac, in 1878. In both, the head of the femur was resected. Recovery in both. Volkmann made a longitudinal incision, which extended from the crest of the ilium to the great trochanter. MacCormac made a Y-shaped incision, including a large part of that region. Polaillon made his incision from the anterior-inferior iliac spine, extending down the axis of the thigh about four or five inches. He does not attribute the death of his patient to the operation, but to his alcoholism and general bad condition.—*Bull. Gén. de Thérap.*, March 15, 1883.

Influence of Electric Light on the Eyes.—Prof. Mauthner, in a communication to *Allgemein. Wien. Med. Zeitung*, No. 10, March 6, 1883, says that in estimating the influence of the electric light on the eyes, three factors must be considered: 1. The constancy of the light. 2. Its brightness and illuminating power. 3. The color. As to the first point, the electric arc gives an inconstant or unsteady light, and is therefore injurious to the eyes. The illuminating power is too intense, and is on that account injurious; and, finally, the color is not purely white, and on this account also it may prove injurious.

The Arrest of Hemorrhage.—About eight months ago M. G. Hayem established, by a series of experiments, that the vulnerability of the hæmatoblasts played an important part in the arrest of hemorrhage. These experiments, made on the living animal—dogs—have been more carefully repeated on the horse, with the result of confirming the former deductions. *En résumé*, he found that the blood-clot attached to the wall of a vessel is formed at its base; that is, at its point of insertion or origin, by an accumulation of innumerable hæmatoblasts. He considers this a further proof in favor of the *rôle* played by these elements in the formation of certain intravascular coagulations and of the relation existing between the integrity of the wall of the vessels and the fluidity of the blood.—*Revue Scientifique*, March 17, 1883.

Action of Thymol on the Circulation.—Dr. Fiori has noted the influence of thymol in doses of grs. vij–℈iv, on the temperature, pulse, respiratory movements, and arterial pressure in sixteen subjects. Observations were made every fifteen minutes. Thymol produces a rapid fall of the temperature, and a marked diminution of the pulse in fever. In health the pulse was slowed. The sphygmograph showed augmentation of the undulation of the curves. The blood-pressure diminished with the temperature. Thymol has no bad effect on the heart, and is, therefore, an important antipyretic.—*Gazette Hebdom.*, March 16, 1883.

Sudden Death in Gastric Ulcer.—Perforation of the stomach almost necessarily proves fatal by way of peritonitis, but in some instances death has been known to occur even more suddenly from the accident; that is, before inflammation has had time to be set up. Shock, hemorrhage, or suffocation has usually been accounted the immediate cause at work in this class of cases. Prof. Jurgensen has just described another and very remarkable mode by which gastric ulcer may suddenly prove fatal, namely, by entrance of the gaseous contents of the stomach into the circulation (*Deutsche Archiv für klin. Med.*, xxxi. page 441). A woman, aged forty-nine, suffering from severe symptoms of gastric ulcer, suddenly died, and within twenty-two hours the post-mortem examination was made, no appearance of decomposition being present in the body. A large ulcer was found on the posterior surface of the stomach, its floor being formed by the pancreas, and the splenic vein lay exposed and open. Manifestly as the result of this lesion, air was found in many of the bloodvessels, including the cervical, cardiac, and gastric veins, and the large trunks, and also in the cavities of the heart. Extreme interstitial and subserous emphysema could be traced from the seat of disease. *Prima facie*, there could be but little question of the source of the air and the cause of the sudden death; but to confirm his opinion, Prof. Jürgensen tried the experiment of injecting air into the femoral artery of one side in a dog, and watching the femoral vein of the opposite side. In a few minutes bubbles made their appearance, having traversed, therefore, both the peripheral and the pulmonary capillaries.—*Medical Times and Gazette*, March 10, 1883.

The Development and Growth of Nerves.—M. Vignal has given the following as the result of his researches, in a paper read before the Society of Biology: 1. The nerves are developed from the centre to the periphery, in the form of fasciæ, fine fibrillæ, and granulations ranged in order, and immersed in a homogeneous material. The periphery of these fasciæ is covered by embryonic connective cells; later, by a process of proliferation, these cells penetrate into the interior of the nerve fasciæ, and multiply there, dividing the fibrilli into small bundles and cover them. At the same time they differ from the ordinary connective cells by the great length of their longitudinal diameter, as compared with their transverse diameter, and being applied to the surface of the bundles of fibrilli, and constituting a special envelope for shaping and weld-

ing them together. At this time the nerve-fibre is made up, in its essential parts, by the bundle of fibrilli surrounded by protoplasm, which, itself surrounded by an envelope, is the axis cylinder.

The myeline appears toward the end of the third month of intra-uterine life, under the form of a thin layer which envelops the axis cylinder; sometimes it does not appear in the whole length of the nerve-fibre, but in the form of balls more or less elongated. In the following months it gains in thickness, but parallel to this there is a development of the protoplasm, which often occupies much more space than the myeline. Towards the end of embryonic life, the fibres, with the exception of the protoplasm, have almost all the appearances of adult fibres. The development of the nerve-fibres is much more rapid near the centre than at the peripheral points.—*Le Progrès Méd.*, March 10, 1883.

DUPUYTREN'S ENTEROTOME.—Last October, a very stout woman was admitted into St. Bartholomew's Hospital, under the care of MR. WILLETT, suffering from a strangulated ventral hernia, situated midway between the umbilicus and the pubes—a very unusual situation. The patient had delayed long before applying to the hospital; and, when herniotomy was performed, the gut was found to be gangrenous, and an artificial anus resulted. The condition of the woman was thus very serious, as the portion of bowel which had sloughed was a knuckle of the small intestine, probably rather high up. All feces passed by the artificial anus, and the woman steadily emaciated. After delaying long enough to preclude the hope of spontaneous cure, Mr. Willett determined to resort to Dupuytren's operation, which consists in applying a clamp of peculiar construction to the piece of intestinal wall, called by Dupuytren the *éperon* or spur, which intervenes between the upper and lower portions of gut at the artificial anus. After considerable delay, two enterotomes were procured from Paris; and one of these, a modification of Dupuytren's original instrument, was applied on February 23d. The patient experienced no pain or inconvenience, and the enterotome came away on March 1st, holding in its jaw a piece of shrivelled tissue. Up to the present time, no benefit has apparently resulted from the operation; but it is gratifying to find that the gloomy forebodings, with which the proposal to apply the enterotome was received by some, have not been fulfilled.—*British Medical Journal*, March 17, 1883.

NUTRITIVE SUPPOSITORIES.—SPENCER (*Lo Sperimentale*) recommends that suppositories should be made of artificially digested meat, wax, and starch, in proportions necessary to obtain the desired consistence. When the rectum is very irritable, a small amount of opium may be added.—*Journ. de Méd. de Paris*, March 10, 1883.

THE TECHNIQUE OF RESECTION OF THE PYLORUS.—V. WEHR has made a series of experiments on dogs, under Rydygier's direction, with a view of perfecting the method of operation in resection of the pylorus. His recommendations, based on nineteen operations, are as follows: The most absolute antiseptic precautions must be observed; the stomach must be emptied as completely as possible before the operation; the omentum must be separated without loss of blood; escape of gastric and intestinal contents into the peritoneal cavity must be absolutely prevented; this is best accomplished by Rydygier's compresses; the stomach and intestine must be accurately reunited by three rows of close catgut sutures "furrier's round sewing." The cases require careful watching after the operation.—*Centralb. f. d. med. Wissen.*, March 10, 1883.

NATURE OF PHTHISIS IN DIABETES.—IMMERMANN and RUTIMEYER have put on record (*Centralblatt für klin. Med.*, No. 8) a case which is of interest in connection with bacterial pathology. A patient, aged twenty-nine, was brought to the hospital in a state of profound coma and dyspnœa. The urine contained three per cent. of sugar and a trace of albumen. The man succumbed in nine hours. At the post-mortem examination, a vomica in the apex of the right lung with caseation was detected. The contents of the cavity yielded bacilli, which behaved to staining-fluids just as those from tuberculous cases do. Death was attributed to diabetic coma. In a footnote, Leyden (one of the editors of the *Centralblatt*) states that he has discovered the tubercle bacilli in the sputa in three cases of diabetes complicated with phthisis. The authors speculate on the identity of the pathological process in the lungs of ordinary phthisis and in those of diabetes. The frequency of consumption in diabetes is thought to be explained by the hypothesis that the diabetic constitution affords a specially favorable soil for the growth of the bacillus.—*Medical Times and Gazette*, March 10, 1883.

SOLUTION OF ERGOTINE FOR HYPODERMATIC INJECTIONS.—M. DANNECY, chief pharmacist to the hospital at Bordeaux, obtains a solution in the following manner, which he proposes as a substitute for that of Bonjean: he exhausts by displacement, with cold distilled water, the ergot-rye, suitably divided and cleared of its oil by washing with sulphide of carbon; the liquid remaining is evaporated to about one-third its volume and cooled. The albuminoid matters deposited are separated by filtration, and the resulting liquid is placed in contact with animal charcoal, well washed for twenty-four hours at a temperature of 76°–86° F. Then filtering again after cooling, washing the charcoal-charged filtrate with a sufficient quantity of distilled water, mixing the decolorized solution and the water of washing, the whole is evaporated over a water-bath to 90 parts for 100 of the ergot-rye employed, and 10 parts of cherry-laurel water are then added; after cooling, this is again filtered. The solution thus obtained is of an amber color, strongly reddens litmus paper, and contains, per gramme, the same quantity of the acid principle as one gramme of ergot-rye; by concentration over a water-bath the strength may be doubled or tripled. Numerous experiments have proved the activity and harmlessness of this solution.—*Bulletin Gén. de Thérap.*, March 15, 1883.

OVARIOTOMIES IN ITALY.—PERUZZI reports that from July 15, 1880 to June 15, 1882, one hundred ovariotomies (completing the third hundred) were performed in Italy. Of these, 74 women recovered: 9 operations were not completed, of which 4 died. The supravaginal amputation of the uterus was done 27 times, with 7 recoveries.—*Centralblatt f. Gynäkol.*, March 3, 1883.

TREATMENT OF INFANTILE PARALYSIS BY ELECTRICITY.—DR. DIVE (*Thèse de Paris*, 1882), from very complete and interesting observations, concludes: 1. Continuous currents applied near the beginning of the disease, may cure. 2. Induced currents are efficacious later in the disease, and when the movements return in the paralyzed limbs. 3. The two forms of electricity combined and continued for a long time, produce the best results, especially in desperate cases.—*Bulletin Gén. de Thérapeutique*, March, 15, 1883.

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SATURDAY, APRIL 7, 1883.

RECENT SANITARY LEGISLATION IN NEW JERSEY.

THE Legislature of New Jersey, which adjourned March 16th, enacted a number of laws of importance in the sanitary work of that State. In a supplement to the general law governing local boards of health, many additions were made to the powers heretofore conferred on these boards, among which we may mention the following:

Local boards of health formed under the State law shall be the only bodies having powers relating to public health matters; local boards may abate nuisances or sources of sickness without passing ordinances relating thereto; the rights of local boards to abate nuisances are founded on police or summary proceedings on account of the peril to the public health from such nuisances; the State Board of Health may appoint township physicians where now no such officer exists; local boards of health shall have the authority to specify any contagious disease in which no funeral shall be had, and shall prohibit such funerals under a penalty of $50.

An important section relating to the compulsory reporting of cases of contagious diseases was passed, giving local boards of health power to enforce the reporting of contagious and infectious diseases by the attending physician, and requiring a record to be kept by the board of all such reports, and at the end of each six months the reporting physician is entitled to collect from the local board twenty-five cents for each case.

This is the first instance on record where the labor of physicians in such cases is to be paid for, and will forever silence that portion of the profession which has objected to informing the authorities without compensation for services rendered.

The law regulating the practice of medicine was amended and made more stringent; the provisions of this law are as follows: No person shall commence or continue to practise medicine or surgery without first filing a copy of his diploma with the clerk of the county in which he shall practise. Any violation of this provision shall be deemed a misdemeanor, and upon conviction the person violating the law shall be fined $25, or imprisoned for a term not to exceed six months, or both, for each prescription made, operation performed, or professional service rendered. Any person who shall have had twenty years' practice in one locality, and who shall file with the county clerk an affidavit setting forth such facts, shall be exempt from the requirements of the law. The county clerk is required to keep a record, open to the public, of all copies of diplomas filed with him, and also to transmit a list of those registering to the State Board of Health. The State Board will, in its annual report, publish a list of all physicians entitled to protection under the law, and thus much good will be accomplished. The old law, quite similar but not so strict as this, was rigidly enforced last year in Essex, Passaic, and other counties, and kept not a few irregular practitioners out of the State.

The law prohibiting the sale of adulterated foods and drugs was amended and strengthened. The State Board of Health is to appoint analysts and inspectors to aid in its enforcement. An appropriation of $1000 was made to carry out the provisions of the law. This act contains a very unique provision, one not found in similar laws enacted in other States, or in the English or Canadian adulteration laws; it provides that if upon inspection of food or drugs the same shall be found to be adulterated, the health officer or inspector shall have power to forbid the sale of the article until decision is rendered by the court. This will certainly do much good in certain cases, and we await with interest the result of its enforcement.

The regular annual discussion and attack on the law to prevent the sale of impoverished milk took place, but resulted rather in a victory for the law. This law has proved of great benefit to the farmers in the northern and eastern part of the State, in that it has kept off the market large quantities of poor milk; it has also done good by reducing the quantity of poor milk sold in our cities.

The principal objection to the law seems to be that it was rigidly and impartially enforced. There is now in the hands of the Governor an act prohibiting the sale of skimmed milk in cities in the State, but we are not informed as to whether he will sign it or not.

The law to prevent the sale of dangerous illuminating oils, which did so much good last year, was perfected, and the test fixed at 100° Fahr., flash, instead of having both a flash and fire-test as formerly. The law now is similar to the New York statute.

One of the most important and philanthropic measures enacted by the Legislature was an act creating a State Council of Charities and Correction. This, although similar to the New York law in its purport, is not as sweeping in its requirements, as will be seen by the following of its provisions:

The Governor shall appoint six persons, who shall constitute a Council of State Charities and Correction, of which the Governor shall be president and an *ex-officio* member. The persons first appointed shall serve for one, two, three, four, five, and six years, respectively. This Council shall hold regular quarterly meetings at Trenton, and at such other places as may be deemed necessary.

The Council shall investigate the system of public charities and correction institutions of the State, and examine into the condition and management of all prisons, penitentiaries, jails, reform schools, etc., and of all State, county, town, and city lunatic asylums, hospitals, infirmaries, or other public institutions of charity or care, and of persons therein detained; and may recommend such changes and additional provisions as may be deemed necessary or desirable for the economical or efficient management of any one, or all of these institutions.

The members of this Council are to receive no compensation, except for actual travelling expenses and special services, and may appoint persons to aid them as inspectors; and shall send delegates to the meeting of the National Conference of Charities and Correction.

Persons in charge of all public institutions shall keep a record covering the following facts: name, age, sex, nationality, orphanage or half-orphanage, married or single, and other facts relating to the life, heredity, or history of the inmates; together with the cost of maintenance per day, amount earned by each inmate, hours of labor, etc.; and on the 1st of October, copies of these records must be sent to the Council. The Council will make an annual report to the Legislature. One thousand dollars was set apart to aid in the work of the Council. This law is a good starting-point, and cannot but be of benefit to humanity and society.

It cannot be said that the New Jersey Legislature has not been of late alive to public health interests in that State, and it certainly has done much good work, which will redound to the advantage of the Commonwealth and its citizens.

THE BACILLUS TUBERCULOSIS IN URINE.

THE acme of the bacillus wave which, since the publication of the researches of Koch, little more than a year ago, has been sweeping over the medical world, would seem to have been reached in the detection, in the urine, of the tubercle bacillus, by S. ROSENSTEIN, of Leyden (*Centralblatt für die medicin. Wissensch.*, Feb. 3). The fungus had been previously found, by Lichtheim, in the contents of the pelvis of the kidney of the dead body, but not in the living subject.

The patient was a man, thirty-seven years old, with good family history, who had himself always enjoyed good health until four years before coming under observation—when he first noted pain before and during urination. Two years later, he noted first in the right, and later in the left epididymis, a hardness as large as a small walnut, the testicles themselves being free. There was no lymphatic enlargement or disease of the lung; no fever. Micturition was frequent; the twenty-four hour's quantity between 800 and 1660 cc., and specific gravity 1012–1018. The urine was pale yellow, acid, turbid when passed, and highly albuminous; contained white flocculi as large as a pin's head, and deposited a sediment of pus and a little blood.

The urine was passed into a solution of thymol, and, after twenty-four hours, a drop of the sediment placed on a thin cover, dried over a gas-flame, treated according to Ehrlich's method, and studied with a Hartnack objective No. 3, eyepiece No. 9. Large numbers of bacilli were found in the white particles above referred to. Rosenstein claims, also, that they stain differently from the ordinary decomposition-bacteria found in the same urine.

No inference is drawn from these results. But it may be presumed that from them may be inferred tuberculosis of the epididymis. Here, indeed, is a practical application of rare value. In the case of the lungs, we have physical signs to aid us; but it is well known that we have nothing but guesswork to aid us in the diagnosis of tuberculosis of the urinary passages; and if we may infer from the bacillus thus found the existence of such disease, our difficulties are at end. We can only say, at present, that we fear it seems too good to be true.

THE ELECTRIC LIGHT IN SURGERY.

MEDICAL men, and especially surgeons, are constantly called upon to investigate the various tubes and closed cavities of the body, and when doing so have been defeated, usually, by the insufficient illumination. With Goethe, they have sighed for "*Mehr Licht.*" The problem seems to be on the eve of solution, if not indeed solved.

Apart from the mechanical obstacles, the difficulty has generally been to avoid the heat that

necessarily accompanies intense light. Leiter, the well-known instrument maker, of Vienna, with the aid of Mikulicz and others, has devised an apparatus, described by Dr. Roswell Park in the March number of the *Brooklyn Annals*, which is of sufficient importance to justify prominent mention. It consists of a battery, and connected with it, a number of instruments fitted for the examination of various organs. To obviate the heat, each instrument is in a double tube, and between the two there passes a constant stream of water. Windows are made both for the emission of the light and for observation, and, when necessary, a lens or a series of lenses deflect the light to the observer's eye. The dentist can operate by its aid as well by night as by day. The interior of the urethra and the bladder, the ear, the nose, the larynx, the rectum, the vagina, the uterus, and even the œsophagus and the stomach are all made accessible to observation. Leiter has photographed the larynx by its aid, and Park has seen the pylorus as clearly as the optic disk —red as the retina, and in constant peristalsis, alternately opening and closing. A point which excited considerable interest some years since, he does not allude to, viz., whether there is any such transparency of the abdominal walls that a light in the stomach, bladder, or other organ would aid us in the diagnosis of abdominal and other tumors. Up to last autumn, only three of these instruments were in this country, one each in New York, San Francisco, and Chicago. Our ingenious American surgeons and instrument makers ought to be able to improve materially, however, on these complicated and, we fear, rather too clumsy instruments for general use.

The article may also well point a moral in connection with our remarks on Medical Philology in our last issue. Not to speak of misprints, both of English, French, and German, or of the illegitimate word "diagnose," we must protest against the use of such admixtures of Latin and Greek as "vagino-scope" and "recto-scope." The first should be "elytroscope," and the latter "archoscope." One might as well speak of an "earscope" or an "auroscope" instead of an "otoscope." Moreover, the author in using the word "fenestrum" has evidently forgotten the fact that there is no such Latin word. The proper word is "fenestra."

THE BACILLUS TUBERCULOSIS IN THE DIAGNOSIS OF TUBERCULAR ULCER OF THE LARYNX.

B. Frænkel (*Berliner klinische Wochenschrift*, January 22, 1883) has sought to determine the value of the bacillus in the diagnosis of tubercular laryngitis. After quoting various specialists to the effect that it is impossible or extremely difficult to recognize the tubercular ulcer of the larynx by means of any features peculiar to itself, he says that for many years he has taught that in the majority of cases tuberculosis can be diagnosticated as such by the laryngoscopic picture. He still admits, however, that there are a certain number of cases in which such a diagnosis is impossible. In these cases we are compelled to look for other aids; and such are afforded by "Koch's brilliant discovery of the tubercle-bacilli." By the aid of the laryngoscope and a brush, small portions are removed from the tubercular ulcer. This operation is said to be easy, and probably is, in the hands of the expert, Frænkel having failed but once in sixteen cases. In three only of the fifteen remaining cases did he fail to find the bacillus, having taken at least three specimens from each. The ulcers in these three instances were syphilitic. In nine of the twelve remaining cases the bacilli were found at the first examination; in two at the second, and the remaining one in the third. He claims that we can by this method determine with absolute certainty the tubercular nature of a laryngeal ulcer; but that in order to do this it is necessary to examine at least three specimens of mucus thus obtained. When a negative result is obtained in three such instances, we need not hesitate to declare the ulcer non-tubercular, let the remaining symptoms be what they may. As the bacilli are also found in ulcers in the larynxes of phthisical cases in which microscopic examinations post-mortem fail to discover gray nodules, such ulcers must be regarded as tuberculous in their origin.

SANITARY INSPECTION OF SCHOOLS.

We have just received a copy of a bill amending Section 2,135 of the Revised Statutes of Ohio, so as to make the sanitary inspection of all schools in that commonwealth obligatory. The added clause is as follows: "And the said Board [of Health] is hereby required to inspect semi-annually, and oftener if in the judgment of the Board it shall be deemed necessary, the sanitary condition of all schools and school-buildings within the limits of the Corporation."

This bill contains, by implication, all the powers which were more explicitly expressed in a measure presented last winter, but which failed to pass. It applies to all schools, whether public, private, or parochial, and being thus a general measure, its advantages will soon be broadly tested.

Ohio is to be congratulated upon this progressive step, due to an enlightened public sentiment on the subject of health and education; and we commend the untiring efforts of Dr. Tuckerman and

his coadjutors in behalf of the results just accomplished.

The subject of the health of school-children is more than ever the theme of discussion, not only here, but in other lands. It has borne rich fruit in the city of Brussels, where an excellent system of sanitary inspection has already been established.

As recently as January last, before the Annual Congress held under the auspices of the Educational Institute of Scotland, at Aberdeen, Dr. Farquharson, M.P., in a forcible address exposed the evils prevalent in the national schools, by which the health of children of tender years is imperilled, and pointed out the remedies to be adopted. He strongly advocated the appointment of medical inspectors in schools, who should superintend the construction of all school-buildings, regulate their ventilation, proper heating and lighting, and who should also have some voice in deciding the amount of instruction suitable for different pupils. His views met with general approval at the Congress, and will ultimately lead to good results. It is to be hoped that this public discussion of the subject will be continued until a rational system of protecting the health of the young while being educated shall have been everywhere adopted.

A mortifying contrast is, however, presented to this action in the conduct of the same legislative body when a bill making vaccination compulsory was introduced by Mr. Ellsworth. "There was a pile of fun in the House," says a special Columbus (O.) newspaper correspondent, when the bill was introduced. "Motions to refer to the committees on ditches, drains, and water-courses, printing, and federal relations, were made and lost. One member moved that the bill be made local, and apply to Ellsworth and his constituents; and another that it apply to persons over 100 years of age," while the bill was finally postponed indefinitely.

That a body of men elected, presumably on account of their intelligence, by the people to represent them in enacting laws for the public good, should treat in this manner any measure seriously proposed, whether it be expedient or not, is disgraceful to those taking part in the puerile exhibition, and humiliating to their intelligent constituents. Let us hope that the latter will mark the offenders, and discriminate accordingly at the next election.

TRANSITORY POST-EPILEPTOID PARALYSES.

IN a careful discussion of this subject by M. DUTIL, which appears in the *Revue de Médecine*, No. 3, 1883, we find some points which may be of interest to our readers. True epilepsy is rarely accompanied with paralysis; on the other hand, partial seizures and epileptiform attacks are not unfrequently so complicated. Epileptiform convulsions due to cortical lesions are frequently associated with permanent paralyses. Sometimes the paralysis precedes the epilepsy—in other words, a hemiplegic or monoplegic is attacked by convulsions of the epileptiform character. Sometimes, on the contrary, paralysis succeeds to the epileptic attack—partial convulsions are followed by transitory pareses, or paralyses. Post-epileptoid paralysis is usually situated in the muscles which are exclusively, or chiefly, involved in the convulsive seizure. In general, it may be affirmed that where permanent paralysis is followed by epileptiform attacks, the lesion is situated in the cortical motor zone. On the contrary, the partial seizures, not accompanied by permanent paralysis, are due to lesions in the neighborhood of, but not in, the motor area. The presence or absence of permanent paralysis becomes, then, a means of topographical diagnosis.

Transitory paralysis of some minutes, hours, or day's duration after the convulsion, does not indicate a destructive lesion of the motor convolutions. It is induced, perhaps, by an irritative lesion at a certain distance from the motor area, and, it may be, under the influence of a peripheric irritation.

It is obvious that M. Dutil adopts in their entirety the views promulgated from time to time by Dr. Hughlings Jackson regarding the cortical motor centres, the effect of peripheral irritation, and the essential difference between irritative and destructive lesions of the motor area.

THE SEWERAGE SYSTEM OF MEMPHIS, TENN.

IN his report for the year 1882 Dr. G. B. Thornton, President of the Board of Health of Memphis, Tenn., remarks that it has been recently published by several widely circulated papers that the death-rate of Memphis has increased since the construction of the sewers, and is attributed to them. This, he contends, is an erroneous impression. The mortality of the city for the past two years exceeded that of 1880, but it must be remembered that the population also has increased.

The census of 1880 gave the city a population of 33,593, while recent estimations put the number at 46,014. Again, the increased mortality of 1881 as compared with the preceding year was not due to local causes, but to atmospheric influences, which caused a like high rate of mortality—mainly from diarrhœal diseases—in several localities in West Tennessee where there were no sewers.

The zymotic diseases which prevail so fatally in the impure atmosphere caused by sewer gas, such as diphtheria, scarlet fever, typhoid fever, etc., have contributed very little to the mortality of Memphis during the past three years. The total number of

deaths from diphtheria in these three years was 53, from scarlet fever 15, and from typhoid fever 45. These are considered low figures for three years in a population of 40,000. Dr. Thornton selected these three zymotic diseases for this period to prove the fallacy of the assertions of those who criticise the death-rate of Memphis so invidiously, and seem to attach so much importance to what they are pleased to attribute to the evil effects of the sewers

KOCH AND SPINA.

We have already called attention to the studies of Spina upon the so-called bacillus tuberculosis, as the result of which he feels justified in declaring the experiments of Koch defective, and his conclusions unwarranted. No other observer has so pointedly attacked the position of Koch, and in the face of the almost unanimous tendency of recently published opinions, Spina's results are nearly as startling as those of Koch, when announced just about a year ago.

For the present, we will simply invite the attention of our readers to the communication, in another column, of our Vienna correspondent, from which it appears that, whatever may be Spina's qualifications as a general histologist, he fails to display the skill in manipulative mycology which characterizes the labors of Koch. In a future issue we shall have something to say about Koch and his critics.

REVIEWS.

A Treatise on Fractures. By Lewis A. Stimson, M.D., Prof. of Surgical Pathology in Univ. of City of New York. 8vo. pp. xvi. 598. Philadelphia: H. C. Lea's Son & Co., 1883.

It is so long since a new American treatise on Fractures has appeared, that we welcome Dr. Stimson's with no little pleasure. It is an excellent guide to the profession, and will be cordially received by it. It shows wide reading and good judgment. At times it is somewhat unsatisfactory from want of explicit directions, *e. g.*, in the chapter on treatment as to the time when passive motion should be begun in various fractures. The index, too, is not so full as it ought to be. Moreover, the book has somewhat too much of a local flavor for a work intended to appeal to the wide constituency of the entire country.

The number of figures is much less than it seems to be, for very many of them do double duty. Some are carelessly done, as Figs. 91 and 298 show Nathan R. Smith's anterior wire splint suspended vertically, so that no extension is made on the broken femur, though Figs. 92 and 299 show Hodgen's splint, which acts on the same principle, with very marked extension. Figs. 113 and 293 (from Hamilton) surely show fracture of the wrong leg.

We are glad to see Fowler's "carrying function" of the arm recognized, as also Dr. Allis' important papers on fractures near the elbow, and that the use of plaster splints is heartily commended. The book is a valuable addition to our surgical literature.

La Femme Stérile. Par le Dr. P. M. Dechaux, de Montluçon, Ancien interne des hôpitaux de Paris, Laureate de l'Institute, Médicin en Chef de l'Hôpitaul de Montluçon, Membre du Conseil d'hygiene et de Salubrité, etc.

The Sterile Woman. By Dr. P. M. Dechaux (Montluçon), Laureate of the Institute, etc. 18mo. pp. 212. Paris: J. B. Baillière et Fils, 1882.

A novel feature of this book, distinguishing it from all other medical books of which we have any knowledge, is a *lettre-préface* signed *une Grand'Mère*. Of all persons, we should select a "grandmother" as least likely to know any of sterility (from personal experience). She writes: "I believe that this little book will be of much interest to men generally, to naturalists, and to *grandmothers*." How it can interest the grandmothers we are at a loss to conjecture. But if the *lettre-préface* is a curiosity what shall we say of the author's preface, in which he apologizes for the use of technical terms, but says that the fault lies in his subject, and in the dictionary, which does not always furnish words sufficiently *converts*, and adds: "I certainly am for modesty in speech and action." He must be! We are reminded of the young lady who referred to a bull as a *gentleman cow*, though she did not go so far as to say that the fault lay in the sex of the animal.

As causes of sterility, the author mentions *vices of conformation, and uterine deviations and displacements*, but leucorrhœa he does not grant. On the contrary, he claims that this affection is normal to every woman between the age of puberty and the menopause. As a proof of this, he says it has been a common affection of women since the earliest times; that it plays an essential part in the organization and physiological functions of woman, because, as before mentioned, it is only present during the period from puberty to the menopause. A potent argument! True, he does recognize a degree of leucorrhœa which he calls *complicated*, arising from *manifest lesions*, functional troubles, and *general reactions*. And in speaking of the treatment *for complicated* leucorrhœa, he gives the speculum in particular and gynæcologists in general, such another blast as must surely deter all young practitioners from using such an instrument, or studying such a science, under pain of being ostracised.

Under a fourth set of causes given by authors, he mentions lymphatism, general feebleness, anæmia, chlorosis, nervous excitability, indifference, obesity, etc., but Chapter III. is commenced with the statement that of all causes, absence of the uterus is the only certain and admissible one. Chapter IV. treats of "Human Conception." But for this chapter, which contains a "discovery," we should not have thought it worth while to mention so remarkable a book. The author seems to have made a discovery regarding the exact manner in which the spermatozoa find their way into the cavity of the uterus. From all that we can gather, amid a volley of exclamation points, is the fact (?) that they *swim* into the uterus in the discharge, *la glaire uterine*, to which physicians have persisted in giving the name leucorrhœa, which they have persistently regarded as a morbid state, and which for so many years they have been vainly treating. "The common theory, the most seducing," says the author, "of intra-uterine injection of semen, is impossible because the uterus is always full, and because by mediocre forces one mucosity cannot displace another. To force a liquid into the uterus requires a syringe and a *surgical* force." We will merely say concerning this statement, that a case has been reported[1] of suicide

[1] American Journal of the Medical Sciences.

almost immediately after coition, in which semen was found in the cavity of the uterus and in the *Fallopian tubes*. If it was not *injected into* the uterus, how did it get there? We are willing to concede that in many cases there is scarcely a possibility of such intra-uterine injection, as, for example, where the hymen remains intact after coition so as to preclude the possibility of penetration, but it may be pertinent to ask M. Dechaux why animals are furnished with long penes. If it is only necessary to introduce the semen into the vagina, a penis of one or two inches would be as efficient as one of six. The author has concluded that fecundation is produced by the intermediation of the discharge, which gynæcologists and other *errorists* call leucorrhœa, which he, however, calls *une glaire*. With this beam of light thrown upon the hitherto mysterious secret of fecundation, he now proposes to revolutionize the medical world.

As a *consequence of his discovery*, he assures us that a woman is likely to become pregnant if she has intercourse. This information is simply invaluable to those who already have enough children in their families. It will only be necessary for them to abstain from intercourse hereafter, and no unwelcome children will make their appearance. To prove his theory of non-injection, he triumphantly relates the case of a woman who married with an unreduced prolapsed uterus and had no children for twenty years. This was conclusive evidence that the intra-uterine injection of semen was not capable of causing fecundation. Probably, the idea that a prolapse of the uterus was a sufficient cause of sterility has not yet occurred to him. We have not yet noticed one-half of this remarkable book. One chapter, VI., treats of Sterility as a Force; Chapter X. of Artificial Fecundation; Chapter XII. of the Philosophy of Sterility, etc. But it is useless to protract this notice. We will only say that no library of literary curiosities is complete without a copy of it.

SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, March 13, 1883.

THE PRESIDENT, T. M. MARKOE, M.D., IN THE CHAIR.

SUTURING OF THE DIVIDED ENDS OF EXTENSOR TENDONS IN THE FOREARM.

DR. F. LANGE presented a lady patient who, about two months ago, fell from a considerable height, and struck against a china umbrella-stand and cut the tendons of the extensor muscles of the left forearm. He saw the patient two weeks afterward, when the wound was almost healed and there was extensor paralysis involving the third and fourth fingers, only the last two joints moving through action of the interossei. About four weeks ago he made a longitudinal incision, and found that three of the extensor tendons had been divided; namely, those belonging to the third and fourth fingers and to the index finger. The extensor indicis was not injured, because the action of the index existed. The divided tendons of the extensors were separated to a distance of almost one inch and a half. They were brought together and sutured with antiseptic silk. The hand was then put in a position of hyper-extension, and an antiseptic dressing applied. The sutures were removed at the end of one week. The result was that the movements of the fingers could already be quite satisfactorily performed, and it was probable that improvement would still continue to increase.

SUPRA-CONDYLOID FRACTURE OF THE HUMERUS, WITH INJURY OF THE MEDIAN NERVE; OPERATION.

DR. LANGE also presented a girl, eight years of age, who, in August last, received a supra-condyloid fracture of the left humerus from a fall of three or four feet and striking the arm against a beam. A dressing was applied, which she bore for some time, and during the third week—according to the mother's statement—painful contraction of the fingers and wrist occurred. At that time forcible traction seems to have been made, but the pain did not cease, neither the contraction; but, on the contrary, the hand became more and more contracted and paralyzed, and finally quite useless. From the time of the receipt of the injury, she had complained of pain at the site of the fracture. She came to New York about the middle of December, at which time the wrist and fingers were flexed to their utmost, and the movements of the fingers were very slight, indeed; only slight movement of the first phalanges and of the wrist could be made. Every attempt to stretch the parts was followed by intense pain, especially at the site of the fracture, where there could be felt distinctly a sharp protruding edge of bone, and between the fragments there seemed to be a sensitive chord, which he thought might be the median nerve, but this subsequently proved to be an erroneous assumption. The movements in the elbow-joint were restricted to an angle of about twenty degrees. There was paralysis of sensibility in the region of the median and the radial nerves, and entire absence of electric irritability. Dr. Lange recommended at first electricity, massage, and active and passive movements. This treatment was administered for about six weeks, at first with some marked success; after several weeks, however, the progress ceased, and the pain at the spot of the fracture persisted.

Dr. Lange then proposed an operation, assuming that the nerve at the point of fracture was irritated by the callus and adhesions, and at that time Dr. Sands saw the patient in consultation, and approved of the proposed procedure. About four weeks ago, Dr. Lange performed it, and cut down on the inside of the elbow-joint against the protruding fragment, and found the following relations: the median nerve ran in front of the sharp edge of the bone in an angle, and at that point was somewhat flattened. Above that point it was somewhat swollen and thickened. The spindle-like swelling which he felt before the operation was a mass of muscular fibre belonging to the brachialis anticus. He loosened the nerve, excised the protruding fragment of bone, and since that time there had been decided improvement, both with regard to the facility of movements of the fingers and the use of the hand. The strength of the muscles which are supplied by the median nerve had not improved very much, and yet it seemed as if the cramped condition which existed in the flexor muscles was steadily decreasing. It seemed also that the extensor muscles had become more active since the operation. There was one interesting point, namely, that since the operation an entirely different and more normal form of nail was growing, and there were ridges on all of the nails alike, marking those parts of nail before the operation from that after it. The color and temperature of the skin had also markedly improved. Having been of a pale bluish before the operation, it was now of a more rosy tint. The temperature of the wound had become normal.

DR. C. T. POORE then read a paper entitled

SOME EXPERIENCE IN EXCISION OF THE HIP-JOINT.

He said: I do not think that I have anything new to offer in regard to excision of the hip-joint; the object of this paper is simply to call out discussion.

As far as my experience goes, suppurative disease of this joint has its origin in an osteitis, or osteomyelitis, as it is sometimes called, of the head of the bone, the articular cavity being involved secondarily. This paper is based on the experience in eighteen cases of excision occurring among the poorer classes and in hospital practice; they are not therefore to be compared with cases occurring among the better classes.

Ten cases occurred in girls and eight in boys; the youngest was two and a half, the oldest was fourteen years of age. The disease has lasted from two to sixteen years. Many of the patients had been under strict mechanical treatment for from one to four years without any effect on the course of the disease. Abscess continued to form and discharge, so that in not a few patients the thigh and gluteal region were riddled with openings, from which pus continually flowed, while in others only one opening had formed. Excision was performed in all cases in the same way, with a long incision over the trochanter major, the tissues separated from the bone, and the head removed; in thirteen cases above the trochanter minor, and in six below that point. In four cases, after some months, the end of the femur was excised.

The pathological conditions underlying the external symptoms mentioned above were as follows: in seven cases the disease was confined to the head of the bone, the shaft appearing healthy; in all these cases the cartilage had entirely disappeared, and in most the head was represented by tubercles, or lay loose in the cavity of the acetabulum. The shaft was diseased in eleven cases; by this I mean that the central cavity was enlarged at the expense of the compact tissue, so as in many cases to admit the finger. The external shell had in many places a worm-eaten appearance; the bone was of dark color, and so soft that a probe could be easily made to perforate it. In a few cases the cavity was filled with pus; the periosteum did not appear much thickened, but was easily separated from the shaft. The floor of the acetabulum was more or less diseased in all of the cases; it was perforated in four; it was extensively diseased in its upper and posterior border in nine. In two cases I have seen a perforation of the upper wall opening on to the dorsum of the ilium, the external edge forming a bridge over it. In one case there was extensive disease of the pelvic bones; in short, they were all cases of advanced disease, and the pathological conditions such as in other joints would call for excision.

The result in these eighteen cases was as follows: Two are still in the hospital, leaving sixteen to be accounted for. Of these, eleven died and five recovered—about thirty-two per cent. The causes of death were—from pure exhaustion, one; tubercular meningitis, one; septicæmia, one; phthisis, one; amyloid degeneration, seven, in one of these cases the wound had entirely closed at the time of death. Death did not take place in these cases for some time after the operation, varying from two months to four years. The immediate effect of the excision in these cases was an improvement in all respects. The patients were free from pain, increased in flesh, had normal temperature, and in most of them were able to be about, but the wound never entirely closed except in one case. Sometimes only a small sinus was left. After a time an examination with the probe or finger revealed the upper end of the femur bare and rough, and from its cavity unhealthy granulations growing; and an examination of the abdomen in many showed the liver enlarged, and disease of the kidneys. In some cases the end of the femur was re-excised, and the cut surface exhibited the same unhealthy condition. These patients died not *from* but *in spite* of the operation. Of the five patients in whom recovery took place, and by this I mean that the wound entirely closed, no sinus remained open, and the child had use of the limb. The disease had existed six years in one, three years in one, two years in three cases. In all these patients the family history was comparatively good. In two cases, at the time of the operation there was enlargement of the liver. In one of these, albumen in large quantity was present in the urine, and the patient had two quite profuse hemorrhages from the lungs. Section was made one inch below the trochanter minor on account of profound disease of the shaft, yet recovery took place. In the other case the disease was confined to the head of the bone.

In regard to the permanency of the cure, one case was heard from five years after leaving the hospital. He was going about and had good use of the limb. One I examined six years after; he was well, and had been following the occupation of an express driver. One was seen eighteen months after his discharge, and was well. The other two cases I have lost all trace of.

In regard to the amount of shortening in these cases, it varied with the duration of the disease, its extent, and the point of section. In four cases it was as follows: three-fourths of an inch; one and one-fourth at time of discharge, and one and three-fourths eighteen months later; seven inches five years after leaving the hospital. In one case, two inches.

The elements going to make the shortening after excision of the hip-joint are—first, the amount of bone actually removed; secondly, the amount of atrophy of the whole limb from disease and disuse, and thereby the amount of stretching of the band holding the end of the bone to the pelvis. Three of my cases walked well without either crutch or cane. One with seven inches shortening cannot afford to keep himself provided with a high shoe, although he can bear his weight on the limb; he therefore uses a crutch.

In referring again to the cause of death, it will be noted that in all but two patients, it was due to diseases secondary in their nature; namely, amyloid degeneration, tubercular meningitis, and phthisis. The deaths from septicæmia and exhaustion were due, one to the operation, and one to the joint disease. All the patients having amyloid disease belonged to families having a marked tubercular diathesis. In some cases these changes in the abdominal organs came on early; others, late, after suppuration had made its appearance. It would seem that from a study of these cases, and others in which no operation had been done, that there is a marked predisposition among children of tubercular parents who become thus affected in the course of hip-joint disease. I have never seen a case that was not so connected, and it would seem that the more profound the hereditary influence the earlier these changes appear.

Two of the patients operated upon had, at the time of excision, marked enlargement of the liver, and one albumen in large degree in her urine, yet both recovered, and on examination made five years later, in one the liver was found of normal size; the albumen disappeared shortly after the operation.

I have never seen a true dislocation of the head of this bone on to the dorsum of the ilium.

The questions that naturally suggest themselves from a study of these cases are: First, Was a cure by mechanical and expectant treatment probable? and, secondly, What are the indications for excision of the hip-joint?

In regard to the first, I am clearly of the opinion that a spontaneous cure was not probable. The fact that, in those cases that proved fatal after excision, the patient improved in all respects for a time, varying from six months to over a year, and that they finally died of secondary disease, would seem to corroborate that

opinion. I think that an earlier operation would have diminished this rate of mortality.

In regard to the second question, "What are the indications for excision?" I think that it is more difficult to lay down any rules. In cases giving a good family history much can be done by mechanical treatment, and I do not think that an early operation is called for. But in the class of patients belonging to families of marked tubercular ancestry, and in hospital practice, I think that the question of excision should be considered soon after abscesses have made their appearance, as there seems to be a kind of malignancy in these cases.

The presence of amyloid changes is not a bar to recovery, but is a very serious complication.

DR. SANDS said that he thought the rule followed by Dr. Poore, of postponing the operation of excision until the disease has reached a chronic stage, was better than the opposite rule of early interference. As already remarked by Dr. Poore, the cases which are seen in hospital practice are usually of an aggravated character, and, as a rule, have already been subjected to the rest treatment, and treatment by extension without avail, before they are admitted. He supposed, however, that all would agree that until these milder methods had been found to be unavailing, excision should be withheld; for it is a fact, that in private practice, where ample means are at our command, a very large number of patients with hip-joint disease recover, either with entire restoration of the functions of the joint in a few cases, or with anchylosis in other cases, thus obviating the risks attending excision of the bone. But, as Dr. Poore had remarked, when abscesses have formed and sinuses exist, and there is every indication that nature can do no more, and when by postponing an operation the general health of the patient becomes more impaired, and secondary changes in the liver and kidneys especially become probable, excision seems to be the only expedient to which surgeons can resort. It did not seem to him that the indications in hip-joint disease were different from those of disease in other joints, in which there is no question with regard to the propriety of surgical interference. His experience corroborates Dr. Poore's in this particular, that usually there is very decided amelioration of symptoms after performance of excision, and it would seem that this is more certain to occur now than formerly, when we paid less attention especially to drainage, and had got the advantage of antiseptic surgical dressings. He had operated twice within the last six weeks for excision of the hip-joint; both patients were children, one a girl six years of age, the other a boy nine years of age; both had been under observation for one year, and had well-marked disease with abscesses when they entered the hospital. In both, the operation was postponed, in the hope that the abscesses would disappear; but the general health of the children began to give way, and it was very plain that the disease would proceed to an unfavorable termination if left to pursue its natural course. In both cases the acetabulum had been perforated, and the extent of destruction reached nearly as far as the level of the trochanter minor. In both cases the femur at the point of section showed signs of osteitis, and in both the improvement after operation was very marked, although in one more so than in the other. The boy, whose appetite had already entirely failed, and whose pulse was very rapid, improved so much immediately after the operation that he was able to eat, while his pulse was very much diminished in frequency. In the girl the shock of the operation proved severe for a few days, but after that her general health began to improve, and the improvement had continued. He thought that surgeons should not abstain from the operation because a radical cure is not very likely to take place. It seemed to him that the palliation afforded by the operation was sufficient to justify its performance. Respecting complications in bad cases, such as degeneration of the liver and kidneys, while it is a general fact that such complications are fatal, it occasionally occurs that the enlargement of the liver either diminishes or disappears. He could recall one case, that of a lad twelve years of age, upon whom he operated in 1870, and in whom a very bad state of affairs existed at the time of the operation. There were extensive abscess and sinuses, and there was disease of the head of the bone and of the acetabulum, the latter, however, not perforated, and the general condition was such as to give but little expectation of a good result. But the wound healed, and although afterwards it reopened, no dead bone could be found. Finally permanent closure took place about one year after the operation; soon afterward the urine became albuminous, and two years later there was a very decided tumor in the abdomen, evidently formed by an enlarged liver. The boy has remained anæmic ever since the operation was performed, and although albumen still continues to be present in moderate quantities in the urine, the enlargement of the liver has disappeared, and the lad has grown to be a man, is now fairly well, and able to walk without any assistance except that derived from a thick-soled shoe. This boy's parents are living, and are in excellent health; there is no hereditary tendency to tubercular disease.

DR. J. C. HUTCHISON remarked that a few years ago there was a great disposition to excision of the head of the bone in cases where it would seem that the patients would recover without it. The tendency. however, had turned in the opposite direction, and probably many cases which should be operated upon were neglected until it was too late. It seemed to him that where the disease had resisted all the usual treatment, such as rest, extension, etc., and abscesses had formed, and the patient is gradually growing worse, and especially where there were some evidences of amyloid degeneration, that the operation is clearly indicated. He had seen a great many cases recover under the most adverse circumstances, with anchylosis, of course, and sometimes the deformity was such as might subsequently be remedied by an operation.

DR. BRIDDON had seen a number of cases like those reported by the author of the paper, and he thought that the majority of those in which perforation of the acetabulum had occurred terminated fatally. Cavities resulting from accumulations of pus within the cavity of the pelvis were difficult to drain. He had one specimen in which the perforation was large enough to have allowed the passage of the head of the femur, but it was not displaced in that direction. The most favorable result he had seen was in the case of a child, eleven months old; the excision was made in the Presbyterian Hospital. One year after, the shortening was little over a quarter of an inch, all the movements of the joint were free, the sinuses were closed, and the patient is now in robust health, and an inmate of the institution at St. Johnsland. In all the cases that he had seen, the patients were the children of tuberculous parents. In one case of long standing, in which the patient had recovered from the effects of the active processes of disease, he had judged that the caries had ceased, and that the numerous sinuses which refused to heal were kept open by the presence of a sequestrum. An explorative operation was made; the head and neck were gone, and the acetabulum was filled with a bony growth, in the centre of which was an imprisoned mass of necrosed bone. In that case, the sinuses persisted for a long time after the removal of the offending cause. He had recently seen a young

woman who was in the Presbyterian Hospital four or five years ago. All her sinuses had closed, and at times she could get about with tolerable comfort, but for a large portion of the time she was confined to her bed by pain. She had for some time suffered from diarrhœa, and he thought it possible that these discharges might indicate that the external sinuses had closed, because the pus had sought an outlet through the acetabulum and rectum, but an investigation in that direction did not sustain the suspicion. Would not the symptoms in this case warrant an explorative operation?

DR. SANDS asked Dr. Briddon if he meant to say that the children, in his cases, had tubercular disease.

DR. BRIDDON replied that all these children were the offspring of parents suffering from phthisis, and that, although in most of these cases there were no evidences of visceral tuberculosis, he believed that the caries was tubercular, and he was inclined to think that we were coming back to the idea that tubercle was the cause of many of the cases of disease occurring in the cancellous structure of bone.

The PRESIDENT remarked that in deciding the question whether in any given case excision should be performed, he believed a much safer conclusion would be reached if the possibilities in these cases were always borne in mind. There is no case which is absolutely hopeless. Even cases in which perforation of the acetabulum has occurred and intra-pelvic abscesses exist, are not certainly and absolutely hopeless. In making up his estimate with reference to the result in any given case, he had been influenced in his judgment by one striking instance which he had seen. After languishing for a long time with numerous abscesses connected with disease of the hip-joint, a young girl, in whom the operation of excision seemed to be entirely indicated, and to whom it was recommended but refused, finally recovered. During the progress of the case, abscesses formed in the pelvis and discharged fecal contents, showing that there was communication with the intestine. The patient finally was able to walk upon the anchylosed limb, and many years afterward he saw her, and she had become a fleshy, healthy girl, with an appearance of the tissues about the hip-joint which was somewhat remarkable. In her thin, emaciated condition, the soft parts during the healing process had become united to the bone opposite each fistula, and the interspace between being gradually filled up with fat, left about the hip six or eight depressions nearly as deep as the length of his finger at points corresponding to those at which the old sinuses opened.

DR. SANDS asked the President if he did not consider such a result so sufficiently rare as not to justify the surgeon in accepting it as a criterion.

The PRESIDENT remarked that the result was extremely rare; nevertheless the possibility of such an occurrence he believed should be accepted, and should have its due weight in the mind of the surgeon when considering any individual case.

STRANGULATED HERNIA.

DR. GERSTER presented a specimen, and related the history of the case as follows: A working man, thirty-five years old, had had a reducible oblique inguinal hernia since his eleventh year, and had worn a truss for seventeen years. In the evening of January 30th a sudden abdominal pain compelled him to leave work, whereupon he, of his own accord, took a large dose of salts and went to bed. Vomiting and more pain supervening, the family attendant was sent for, who made an unsuccessful attempt at taxis. Fecal vomiting, intense local pain, with tenderness all over the belly, induced Dr. Gerster to have the patient transferred to the German Hospital, where herniotomy was practised January 31st. Eighteen hours after the beginning of the incarceration, ether being the anæsthetic used, the very large, tense, and somewhat reddened tumor was incised in its full length down to the sac. This being opened, some reddish serum escaped, and a large omental mass presented itself, which was found to be firmly attached to the lowest portion of the sac. Both pedicles having been secured by catgut ligatures, this was removed, exposing about ten inches of small, much distended, dark-red intestine. The strangulation now was relieved by the usual steps. The strangulated portions of the gut were carefully drawn forth and examined. The knuckle of intestine showed no unequivocal signs of necrosis, was uniformly reddish-brown, not mottled or gray; its feel and turgor were normal, both at the convexity and at the places of strangulation, the serosa shining, so that it was deemed proper to replace it in the abdominal cavity. The sac, which was closed at its neck by a purse-string-like strong catgut suture, including the external ring, was cut away below this suture and entirely extirpated. The operation was finished by the application of a row of external sutures and an antiseptic dressing.

Immediately after the operation marked relief was felt, nourishment was retained, wind passed, and vomiting ceased. Five hours later the thermometer showed 103° Fahr., but the pulse was good and the patient felt well. Next day some meteorism, slight nausea, and a temperature of 103.5° Fahr. were noted, wherefore one grain of opium hourly and an ice-bag on the belly were ordered. On the third day after the operation nausea and meteorism had still more increased, and the patient's skin and sclerotic had attained a marked icteric hue. Temperature ranged between 102° and 103°, the pulse between 110 and 120 beats. The patient complained of pain in the hypogastrium, which, however, did not increase on pressure. The wound was found well united and without a trace of reaction, so that some of the absorbed catgut sutures could be wiped away. The night was passed badly, in spite of large quantities of opium. On February 4th it was reported that the patient, having vomited last night, had a violent coughing spell, when he felt as though something had given way, but not feeling any increase of pain, did not call the nurse. Next morning a knuckle of injected gut was found protruding from the open external wound; it had become firmly adherent to the walls of the wound by exuded lymph, and in view of the meteorism, vomiting, high fever, and generally bad condition of the patient, it was decided not to disturb the protruding gut, but rather to make an attempt at utilizing the state of affairs. The finger was carefully introduced into the inguinal canal, and it was ascertained that no strangulation was present, whereupon a long incision was made into the gut, and, some gas having escaped, a soft catheter was pushed well up into the upper part of the intestine, this portion having manifested itself by the escape of fecal matter. Thus it was hoped that more gas would escape. The patient died the same day at 3 P.M., with all the signs of a most acute septicæmia. It was noted that as the rate of the pulse rose the temperature declined, till shortly before death the temperature was 90° Fahr. Pulse filiform, and not to be counted.

Post-mortem examination revealed the absence of septic peritonitis. A small quantity of orange-colored, clear serum escaped from the cavity. The prolapsed gut lying in the wound belonged to the lower part of the ileum, and showed signs of adhesive peritonitis. In the left iliac fossa a mass of agglutinated slate-colored intestine was found, representing the hernial contents replaced at the operation. The places of strangulation were still clearly visible by a band-like depression at one end, and by a loss of continuity of

the serosa at the other end of the knuckle. Here the tissues were not necrosed, whereas at the convexity of the knuckle, where at the operation normal turgor and feel were present, an extensive portion of the gut was necrosed and shrivelled, but not detached. The intestine having been opened, a band-like coat of diphtheritic, grayish-white membrane was found closely adherent to the mucous surface, corresponding exactly with the sites of strangulation. The mucous space enclosed by these two lines was covered throughout by a multitude of round and confluent diphtheritic patches, some of which, being denuded of their gray coating, presented themselves as shallow ulcers. These ulcers appeared to be the same both over the necrosed and the non-necrosed portions. The mesentery was found turgid and reddened, but not necrosed. The cause of death was acute septicæmia from enteric diphtheria and necrosis, caused by a strangulation of eighteen hours' duration, and probably favored by the action of the laxative.

Here we had, then, a case of very acute strangulation, where at the operation for its relief the gut was found to be without signs of imminent necrosis, fairly turgescent, and where some five or six hours after the operation that portion of the intestine necrosed which had not been subjected to the direct pressure of the strangulating ring. Clearly, changes in the arterial blood-supply from the mesentery must have been the cause of this issue, and not direct pressure, as is most frequently the case. This is the second case of a similar nature occurring in the experience of Dr. Gerster, and he pointed to the insufficiency of our knowledge in determining at the time of herniotomy whether the given intestine will or will not undergo necrosis after replacement. He called attention to the fact that the external appearance of the hernial contents in many cases presented no reliable signs for determining the future of such an intestine, and that the surgeon still had to trust to good luck. A narrowing down of the limits of this class of cases was very desirable.

DR. BRIDDON said that some years ago he saw a German woman, in consultation with her physician, who had been suffering for nearly a week from symptoms of moderate strangulation. The right groin was occupied by a painful swelling; the skin was adherent to the subjacent structure; it was red and inflamed, and fluctuation was distinct. On dividing the tissues, a collection of pus was found external to the sac, which contained a knuckle of intestine, covered with granulations, and only very slightly adherent to the ring. The structure was divided, and the intestine was gently placed just within the ring. Everything went well until the seventh day, when, without the approval of her physician, and at the suggestion of an officious friend, she took an active cathartic. It operated through the natural channel and through the operation wound, which had been left open. The cavity of the peritoneum was not invaded. The fecal fistula gradually contracted and closed, and she got well.

He could recall another case of similar character which he had seen in consultation with Dr. Gillette. In that case there was suppuration of the sac. The gut was adherent to the neck of the sac, and it was sphacelated. The adhesions were not disturbed, the gut was opened, and the wound was left to close by granulation. Feces were discharged freely through the wound; but the amount diminished gradually. The fistulous channel contracted, and eventually healed. Several years ago he presented, at the Pathological Society, a specimen of strangulated intestine, which was removed from a woman, in whom the condition of prostration present did not appear to be warranted by the condition of the imprisoned gut, which was by no means much altered. The operation was followed by diarrhœa and death. He remembered that the late Dr. Krackowizer was present at the meeting, and expressed the opinion that death did occasionally occur after herniotomy from catarrhal inflammation of the intestine, due to the use of cathartics, administered before the strangulation was relieved, and which only commenced to manifest their action after the obstruction was removed.

DR. SANDS said there was one question which had not been broached in connection with the specimen presented by Dr. Gerster. He thought it was the rule with most surgeons in doubtful cases, to be careful to leave the suspicious portion of intestine at or near the abdominal ring, so that in the event of necrosis, an artificial anus would be likely to be established. He supposed that in the present state of our knowledge this is a proper rule. He could recall instances similar to those related by Dr. Briddon, where he had returned the intestine in this way, which subsequently became necrosed and led to the formation of an artificial anus, which subsequently closed spontaneously. In Dr. Gerster's case it would seem that death was not determined by peritonitis caused by the reduction of the intestine, but probably by septicæmia resulting from gangrene, which would have occurred equally if the intestine had not been reduced. This circumstance raises the question, whether it might be thought advisable to excise that doubtful portion of the intestine, and unite the edges of the remaining portion with sutures. This operation had been proposed and performed in cases where gangrene was manifest, and although theoretically such a procedure is correct, yet, experience has shown that the adjacent intestine is apt to be so much softened as not to be able to bear the strain of the sutures. Perhaps, however, in cases like the one narrated by Dr. Gerster, in which the morbid process had not far advanced, success might be possible.

DR. WEIR remarked, that in cases in which gangrene was recognized, the surgeon at once knew what to do. He was either to establish an artificial anus, or exsect the intestine, preferably the former. In the doubtful cases, it might be very difficult to decide which course to take, whether to cut off the strangulated portion of gut altogether, since the present specimen showed, with others he had seen, that there was risk of subsequent gangrene, or to partially replace it as already mentioned, and await the result. In one instance he had encircled the intestine with a loop of catgut, the ends of which projected from the wound, to keep the intestine in the neighborhood of the ring. The case, however, did well, and no use was made of this loop, which dissolved in the discharges.

The PRESIDENT remarked, that he had been guided chiefly by the condition of the capillary circulation, in answering the question whether or not the vitality of the gut would be retained. If, after pressure with the fingers, the return of the circulation is feeble and imperfect, he had always felt that the intestine was doomed to die.

DR. GERSTER thought we were unable in every case to apply satisfactorily this test mentioned by the President, as in many cases the gut was so engorged and thickened that pressure could only be made so far away as to be of no special value for determining the exact condition of the circulation in the portion which had been strangulated.

The PRESIDENT replied that he had always been able to decide the question satisfactorily for himself, after freely dividing the stricture, and he thought that, by the exercise of a little patience, the condition of the capillary circulation could be ascertained.

DR. WEIR exhibited an instrument devised by Mr. Treves, of London, for

SUTURING DIVIDED ENDS OF INTESTINE

after the removal of a gangrenous or diseased portion. The details of the instrument are to be found in the *British Medical Journal* for December 12, 1882.

THE OVARIAN CORPUSCLE.

Dr. Briddon presented a specimen of fluid removed by aspiration for diagnostic purposes from a tumor in which there was doubt as to the true nature of the disease. The whole abdomen was filled by an elastic, but non-fluctant tumor. The history gave no clue as to what point it started from. It was immovable, and its connections, if any, with the uterus could not be made out. The fluid was of the color and consistence of golden syrup, was alkaline in reaction, and its specific gravity was 1014. Heat transformed it into a coagulum which was dissolved by boiling with two volumes of acetic acid, determining the presence of paralbumen, regarded by some as significant of ovarian disease. Under the microscope he found some few epithelial formations, and a number of large, round, granular corpuscles, also considered as pathognomonic of ovarian cystic growths. In conjunction with this, Dr. Briddon presented a specimen of fluid which he had removed the day before from the tunica vaginalis of an old gentleman. This he also treated by the chemical test applied to the first specimen, and demonstrated the presence of paralbumen. Continuing the examination, he found under the microscope the same large, round, granular corpuscles—monster leucocytes.

Dr. J. C. Hutchison then exhibited a *Simple form of Ether Inhaler.*

PHILADELPHIA ACADEMY OF SURGERY.

Stated Meeting, December 4, 1882.

The President, Prof. S. D. Gross, in the Chair.

Dr. Ferdinand H. Gross reported

A CASE OF TRIGEMINAL NEURALGIA RELIEVED BY LIGATURE OF THE CAROTID ARTERY, AND NEURECTOMY,

which is published in full in the American Journal of the Medical Sciences for April, 1883. He gave a condensed clinical history of the case extending over nine years, with an account of the various remedial measures undertaken for its relief. The result of the operative treatment may be summarized as follows:

1. The effect of the ligation of the common carotid artery was immediate relief in the domain of the first and second divisions of the trigeminal nerve; the period of immunity from pain in the second division being fully two years, while in the first division the pain has never returned, the relief there being probably permanent, and can only be accredited to the carotid ligation. The effect of this operation upon the third division of the nerve was too transient to count for anything.

It should be added that no impairment of intellect has followed the ligation. After the lapse of nearly two years and a half no disturbance of brain functions has been noticed either by Dr. Gross or the patient, or by any of those who are habitually associated with him.

2. The first neurectomy of the inferior dental nerve, eight months later, resulted in a period of relief from the neuralgia of about one year and three months—to remain within safe limits.

3. The last two operations, viz., the neurectomy of the superior maxillary and the repetition of the operation upon the inferior dental nerve, were performed within two months of each other, September 14th and November 11th, respectively, and may be considered together. The result thus far is entirely satisfactory, the patient being now, three months later, completely relieved of the neuralgia.

The President, after thanking the lecturer of the evening for the interesting and exhaustive manner in which the subject had been presented, remarked that the paper was well worthy of elaborate discussion, and requested Prof. Bartholow, who was present as a visitor, to give his experience from a medical point of view.

Dr. Bartholow expressed his gratification at the privilege afforded him in listening to the paper, which he thought was full of instruction, but would prefer to suspend final judgment as to the ultimate result of the operations until a longer time, say six months, had elapsed. While he could not speak of the subject as a surgeon, he would say that he had used, with good effect, in severe cases of neuralgia, deep hypodermic injections of chloroform, and in a number of instances with permanent good result. From five to fifteen minims was the quantity injected, but it was necessary to lodge the chloroform deeply and near the nerve-trunk. In only one case in his experience had there been any trouble from the formation of abscess after the use of this remedy.

Dr. Brinton stated that he had performed neurectomy three times, but in his experience there had been but little permanent good. In all the cases, the pain had returned in from six to twelve months. During that time, however, the patients were more or less comfortable, and regarded from this point of view, the operation would seem justifiable, as affording temporary respite from suffering.

Dr. Packard said he had operated on one case, in 1869, trephining the anterior wall of the antrum, drawing out the nerve and dividing it far back.

The patient, a gentleman from Minnesota, had suffered extremely for twenty-four years. He derived immediate relief from the operation, which lasted at least for six months after his return home; since which time Dr. Packard had not heard from him.

Dr. Willard related his experience with a case in which the inferior dental nerve was divided by trephining the ramus of the jaw. The patient had been a sufferer for five years, and had become addicted to the hypodermic use of morphia in enormous doses. The relief was partial for six months, when, the pain returning, a second operation was done, resecting an inch of the nerve, since which time, now six years, there has been no return of the disease.

Dr. Nancrede said that the remark made by Dr. F. H. Gross, with reference to the possibility of seeing the foramen rotundum through the orbit in some skulls, whilst in others it could not be seen, seemed of much interest, since Dr. Gross had shown on the two skulls he presented, that a somewhat different manipulation would be necessary in order to divide the nerve close to its point of emergence from the cranium. A cursory glance would show that these two skulls presented marked examples of two types of orbital fossæ, viz., the quadrate and the rounded. In the former, the transverse diameter is fully one-third greater than that from above downward, while in the latter they are nearly equal. Where then the transverse diameter very much exceeds that from above downwards, the floor of the orbit is, as it were, *raised*, and the foramen rotundum hidden from view; whereas, when the opposite measurements obtain, this opening can be seen. Dr. Nancrede then pointed out that the junction of the external angular process of the frontal bone with the malar, could be readily detected on the living subject as well as, approximately, the suture between the internal angular process of the frontal with the nasal process of the superior maxillary bone. Measuring between these two points would give the transverse diameter.

Again, the supra-orbital notch or foramen is usually readily detected; while a line dropped from this point with a slight inclination outwards, will strike the margin of the orbit just above the infra-orbital foramen, which opening can be usually detected by careful palpation. Measurement between these points of the orbital margin would give the diameter from above downwards. By comparing the diameters, Dr. Nancrede thought that one could predicate before an operation, whether the foramen rotundum could or could not be seen from the operation wound. It might seem a point of small importance, but in a delicate operation like that performed by Dr. Gross, the minutest details were of importance, and "forewarned was forearmed."

DR. JOHN B. ROBERTS was especially interested in the result of the ligation of the common carotid artery; and, as the relief of pain was probably due to cutting off the blood current from the central portion of the nerves involved, suggested that ligation of the internal carotid might be as beneficial. This, as shown by Wyeth, can readily be done just above the level of the top of the larynx.

DR. R. J. LEVIS remarked, that in operations upon the inferior dental nerve he had sometimes found it difficult to draw the nerve out. In an edentulous jaw this might possibly not be so.

DR. F. H. GROSS, in closing the discussion said Dr. Nancrede's remarks upon the anatomical points of the orbit were interesting, as showing the possibility of determining in advance of an operation by external measurements the variations in the orbits of different skulls; but no matter what peculiar formation these measurements might lead him to suspect, he would still prefer Wagner's method of operating, although in some cases nice manipulation might be required to divide the nerve far back.

In Langenbeck's and Hüter's subcutaneous operations, the nerve was divided in the spheno-maxillary fissure, but in Wagner's the nerve is brought into view, and can be divided at a more central point, even at the foramen rotundum and behind Meckel's ganglion. In this operation, too, the violence done to the superior maxillary bone, as in Carnochan's mode and some others, was avoided.

As to Dr. Robert's suggestion to tie the internal carotid, the speaker thought he would prefer to boldly tie the common carotid. The object was, of course, to lessen the intra-cranial pressure and irritation. He further remarked that whilst it was unfortunate that the neuralgia sometimes returned after neurectomy, they had nevertheless heard of patients being relieved for years, and sometimes permanently, and that relief, even for a short time, from the atrocious pain of this malady was a great boon. He was fully in accord with the writer who had said: "the possibility of relapse should not militate against resection."

NOTE.—March 19, 1883, "at this date, over *four months* after the neurectomy of the inferior dental, and over *six months* after the operation upon the superior maxillary nerve, the patient continues entirely free from neuralgia."

CORRESPONDENCE.

PHOTO-MICROGRAPHY.

To the Editor of THE MEDICAL NEWS.

SIR: I have read, with much interest, the paper by Dr. Piersol, of Philadelphia, on "Photo-micrography by Lamp-light," in your issue of March 17th. Perhaps I may be permitted, as one who has worked in this special field for several years, to supplement his article by a few words of my own. I quite agree with his eulogy of the "dry-plate" process, having used the gelatine process extensively myself, and the "emulsion" process before it, with great success and satisfaction.

It is of great importance to line all the apparatus with a dull-black material; for the microscope tube, I always use a pasteboard lining covered with black velvet, and for the camera and extension shellac varnish made very thick with lampblack, and applied till the surface is perfectly dull when dry. If care is not taken, the black will crack off from the internally projecting edges of the bellows and produce a spot capable of reflecting light, so that I now use a bellows camera of my own make, in which the bellows part is lined with velveteen. Using a "Hartnack" stand, I find the draw-tube too narrow, and get better results by taking it out entirely, and replacing it by a velvet-lined tube of pasteboard. I have used the "Keystone" dry plates with much satisfaction, and can recommend them. The most difficult part of the manipulation is, undoubtedly, the focusing, and I may state that for a good many years I have dispensed with the ground glass, which has always been a source of error and delay, as well as necessitating some machinery to reach the focusing screw. I now use the following arrangement with great ease and comfort: A suitably sized hole is cut in the side of the camera bellows, and a glass plate covered with white bristol-board is used instead of ground glass, the operator viewing the image thrown on the white surface, which makes it very sharp and distinct; the least change in the focus being at once apparent. During exposure the hole is covered with a piece of velvet. If this mode is used, the position of the operator allows him, in almost all cases, to dispense with any cords or levers to move the focus-screw, as he can easily reach it with one hand. I have used objectives from four inches to one-sixteenth inch focus, and find the actinic and visual foci practically identical. With very high power objectives it is often useful to possess a camera with a focusing screw of its own, as this allows of a more gradual change of focus, by advancing or withdrawing the focusing screen, than can be accomplished when the microscope screw is used alone. As regards the objects suitable for photographic reproduction, I can only re-echo the words of Dr. Piersol: sections *must* be *very* thin, deeply stained, and sharply differentiated.

Yours very truly,

NELSON B. DE S. SIZER, M.D.

336 GREENE AVENUE, BROOKLYN, N. Y.,
March 30, 1883.

NEWS ITEMS.

NEW YORK.

(*From our Special Correspondent.*)

A COMPLIMENTARY DINNER is to be given Dr. Oliver Wendell Holmes, of Boston, on April 12, 1883. Among the committee appear the names of Drs. Fordyce Barker, T. G. Thomas, J. C. Dalton, D. B. St. John Roosa, Cleveland, Sturgis, McLane Hamilton, and Draper.

EXTIRPATION OF THE UTERUS.—Dr. Wm. T. Bull, of this city, has performed his second successful extirpation of the entire uterus. There seems to be an unusual rivalry between the "pure surgeon," and the gynecologist just now, which threatens to assume formidable proportions.

THE COUNTY SOCIETY'S NEW DELEGATES TO THE STATE SOCIETY.—The election of three delegates by the conservative party, the other evening, was an unexpected blow to the supporters of the new Code. The lethargic old party has aroused itself, and, under the

leadership of the younger Flint, appeared in full force at the meeting of the County Medical Society, at the College of Physicians and Surgeons, on Monday, and elected Drs. Leale, Ward, and Hitchcock by a majority of twenty. The end is not yet. Grim threats of a process just now in favor in Ireland, and known as boycotting, is hinted at. It is a significant fact that three homœopathists have resigned from their local county society since the passage of the new Code.

The Death of Dr. W. H. Van Buren has saddened the profession during the past week. Dr. Van Buren was one of the courtly medical men of the old school, who are rapidly passing away, and was respected not only for his great talents, but for his personal nobility as well.

NEW ORLEANS.

(*From our Special Correspondent.*)

Smallpox.—Until within the past two or three days, the weather has been unusually cool for this latitude. This almost continuous low temperature has had its influence in perpetuating the epidemic of smallpox now prevailing in this city. Hot weather not only invites open windows and doors of sick chambers, but beyond question both shortens the period of vitality, and lessens the noxiousness of smallpox contagium. During the week ending March 17th there were 56 deaths from this disease; the total mortality of the city being 172. The week ending March 24th, gave 65 death from smallpox; total mortality 179. At a meeting of the Board of Health, held March 27th, a paper was read, which reported 331 deaths from smallpox since January 1st, of which 213 were colored. Nine hundred and seventy-seven cases have been reported, and, as the reader of the paper adds, "showing that two-thirds of the cases had not been reported." There is a city ordinance requiring all cases of infectious diseases to be reported to the Board of Health, under a penalty of fifty dollars fine. This statement of the common neglect to observe the city ordinances in regard to infectious diseases, is disheartening to all our efforts to arrive at a better condition of sanitary matters here. It is hoped that the ordinance which has just passed the City Council, giving the Auxiliary Sanitary Association power to employ twenty-five sanitary inspectors, will in a great degree furnish the remedy for this evil by detecting and bringing to punishment all violators of official sanitary laws.

The Medical Department of the University of Louisiana held its commencement last week. The number of graduates in medicine is seventy-four; in pharmacy eight.

The majority of the members of the Medical Faculty agree in the opinion, that the average excellency of attainments as shown in the final examinations, is above that which is usual.

A Pollen Shower.—In referring to the meteorology of this season, it may be mentioned that on the night of March 16th, a shower of rain fell in this city, which brought a copious deposit of pollen from some "wind-wafted pollen" plant or plants. Such occurrences are by no means uncommon in this State, and yet a very large number of people consider them ominous of some portending evil. The color of the pollen was yellow, and as it formed very perceptible lines along the edges of pools of water, the ignorant took it to be brimstone. Indeed a person of education asked your correspondent if this phenomenon was not ominous of a yellow fever epidemic during the coming summer. There is no observation, so far as we know, which affords an exception to the declaration made half a century ago, that no clouds of dust, or organisms visible to the naked eye, are capable of originating pestilences.

VIENNA.

(*From our Special Correspondent.*)

Spina's Studies on the Bacillus Tuberculosis.—Dr. Arnold Spina has just published a book composed of two parts, the first of which gives a historical review of the histological and experimental work done in the department of tuberculosis, while the second is entirely devoted to Dr. Koch's recent startling discovery of the pathogenetic element of tubercle. We pass over the not very conclusive results obtained by an examination of the literature of tubercular disease, preferring to dwell on the second part of Dr. Spina's book, which alone contains original research.

Our readers are well aware of Dr. Koch's arguments in favor of the infectious origin of tubercle. By applying a new method of coloring, he succeeded in detecting what he believes to be a new specific organism, and sought to establish its relation to tubercular disease by two important facts. First, this organism—a bacillus—is nowhere found but in tubercular material, from which it is never absent; and, second, when cultivated and inoculated upon hitherto healthy animals, it causes well-characterized tubercular disease.

Now Dr. Spina's conclusions are opposed to both of the foregoing results; he contests both the specificity of the organism and its bearing on the origin of tubercle.

The specificity of Koch's bacilli, based as it is on their not being stained in a watery solution of vesuvin, when previously colored by an alcoholic solution of methylene-blue, Spina attempts to subvert by closer examination of Koch's proceeding. He shows that the same bacilli can be stained by a watery solution of methylene-blue, that they do not resist the action of acids, as Ehrlich, who demonstrated them by another method, is inclined to think; he even claims to have succeeded in staining them with vesuvin. He further points out that the bacilli rendered visible by Koch's and Ehrlich's methods are of highly varying shape and dimensions, and often present a striking likeness to other bacilli from non-tubercular material, which do not react with aniline color in the same manner.

If neither the reaction with aniline colors nor the outward appearance are sufficient to single out Koch's bacilli as peculiar organisms, Spina might well have spared himself the second series of his experiments, which are meant to show that no substantial connection exists between Koch's bacilli and tubercular disease. He detected a few bacilli brought out by Koch's method in the sputa of apparently healthy men, and in putrefying blood of the frog; he failed to find them in miliary tubercles of the peritoneum in man, and could not state their constant occurrence in the lungs and sputa of phthisical patients. He repeated Koch's experiments on the culture and inoculation of the bacilli, and detected no bacilli in the organs of the animals inoculated.

In conclusion, he grants that Koch's bacilli occur in greater number in tubercular material than elsewhere, and that the substance obtained by Koch's culture-experiments is more likely to originate tubercular disease than indifferent material, but he denies that our knowledge of the origin of tubercle has been advanced by Koch's researches.

We do not think, however, that Spina has made out his case, and we beg to offer some remarks on his observations. If the bacilli of tubercle be stained by a watery solution of methylene-blue as well as by an alcoholic one, and do not resist the action of acids, the

specificity of the organism does not seem endangered by these methods of treatment. Even the most impressive among Spina's arguments, the discharging the methylene-blue from the bacilli by protracted action of vesuvin, is not altogether conclusive, for Spina does not contest the fact, that the bacilli in question resist vesuvin for some time, or that they can be made more distinct by a short exposure to the brown solution. It is this very peculiarity upon which Koch's method of distinguishing them from other bacilli relies. If Spina's observations prove true, they only prove that the chemical difference between the bacillus of tubercle and other bacilli is not so striking as was thought at first.

Spina's objections gain additional strength from the observation, that bacilli of different shapes are stained by Koch's proceeding. Whether there be several genera of bacilli, which agree in their behavior with he aniline color mentioned—we must remember that the bacillus of leprosy, though well distinguished by other chemical reactions, is possessed of the same peculiarity—or whether the one bacillus of tubercle is the subject of so great a variation in shape and dimensions, we should keep in mind the fact that the problem cannot be solved on this ground; because the outward appearance of a bacillus is not conspicuous among its characteristic features. In short, Spina's objection is not sufficiently sustained to make one doubt the existence of Koch's bacilli, although it suggests the wish that a better method for demonstrating them, relying on deeper chemical differences, could be found.

Considering the ubiquity of tubercular products in the air, we should not think it strange if a few specimens of the bacillus of tubercle can be detected in putrefying blood and other material prepared very likely in the rooms of the Vienna Hospital. Nor do Spina's examinations of the sputa of healthy people prove fatal to the diagnostic value or pathogenetic importance of the bacillus. Among twenty-four persons, only four presented the bacillus in their sputa, and of these four apparently healthy persons, one showed a flatness of the chest and dulness under the right clavicle; a second is described as possessing the well-known phthisical habitus, and only two are beyond suspicion of past or latent tubercular affection; yet the bacilli are very few in number and all the persons mentioned belong to the medical profession and pass their days in the great Vienna Hospital and Pathological Institute.

Spina's researches on the occurrence of the bacilli in sputa of phthisical patients and in miliary tubercles of serous membranes, where they cannot be deposited from the air, would be of the utmost importance were they not completely contradicted by the results arrived at by other inquirers. If Spina failed sometimes to detect bacilli in phthisical sputa, and never could reveal their presence in miliary tubercles of the omentum, Koch and others seem to have been happier, never missing the same organism in the same material. Here is assertion standing against assertion, and we must still prefer adhering to Koch; not only because one positive observation outweighs many negative ones, but also because Spina appears to have abandoned Koch's elaborate methods for the detection of the bacillus and neglected the use of Abbe's condenser in searching for them.

Spina's culture-experiments seem to have utterly failed, as is evident from his own statements. He never obtained a really sterilized gelatine to carry on the experiments, and all his preparations were lost by gradual drying up, which had to be carefully avoided in Koch's experiments. Yet Koch's cultures of the bacilli constitute a highly momentous link in the chain of proofs for the existence and pathogenetic bearing of the bacillus of tubercle.

To sum up our short review, we are of opinion, that Spina's book falls far short of a refutation of Koch's theory, which it is evidently intended to be, but we believe that it will do good by directing the attention of inquirers to the want of a more precise and thoroughly reliable method of demonstrating the bacillus of tubercle.

THE NEW CODE.—In a communication published in *The Medical Record*, DR. CORNELIUS R. AGNEW says: "There is not much in the New Code that I strongly desire to see retained. I am quite ready to abolish all but one or two clauses of it. I do wish, however, especially to see the clause retained which binds us all to acknowledge the public necessity for a "legally qualified practitioner." "Members of the Medical Society of the State of New York and of medical societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine." It is permissive, not mandatory. I wish to see the profession united to contend for that. . . . The medical man whom the State has pronounced to be a legally qualified practitioner, this chartered State Society cannot disfranchise, however much we may despise him or refrain from social communion or fellowship with him. We cannot discipline a member of our society if his conduct is in conformity with the law of the State."

POLYCLINIC IN RIO DE JANEIRO.—On November 15, 1882, a polyclinic was opened in the above-named city, under the direction of the distinguished Dr. Moncorvo.

SECTION ON OBSTETRICS, AMERICAN MEDICAL ASSOCIATION.—Members and delegates proposing to present papers before the Section on Obstetrics and Diseases of Women, at the meeting of the American Medical Association in June next, are requested to forward at once, or as soon as practicable, the titles or subjects of such papers, to Dr. J. K. Bartlett, Chairman, Milwaukee, Wis.; or to Dr. G. A. Moses, Secretary, St. Louis, Mo.

THE HEALTH OF SURGEON-GENERAL BARNES.—Ex-Surgeon-General Barnes, who has been ill for a long time, is yet quite sick, but has shown signs of improvement within the past few days.

THE JEFFERSON MEDICAL COLLEGE held its annual Commencement in the Academy of Music, on April 2d, at 12 M. The degree of Doctor in Medicine was conferred on 227 candidates. Dr. Addinell Hewson, on behalf of the Alumni, presented to the Board of Trustees a bust of the late Dr. Joseph Pancoast, Emeritus Professor of Anatomy. Dr. J. M. Da Costa, Professor of the Principles and Practice of Medicine, delivered the Valedictory, which was entitled "The Higher Professional Life."

NORTHWESTERN MEDICAL COLLEGE, ST. JOSEPH, MO.—The third annual commencement of this college was held on the evening of February 22, 1883. The degree of Doctor in Medicine was conferred upon eighteen candidates. Dr. S. F. Carpenter delivered the valedictory on behalf of the faculty.

THE NEW YORK COUNTY SOCIETY AND THE NEW CODE.—*The Medical Record*, in commenting on the New York County Society's recent election of Old Code delegates to the Society, comforts itself with the following reflections: "This result was saluted as a great victory. We trust that those who so announce it will have the fairness to add some of the accompanying facts. The vote was obtained by means of systematic canvassing and a preliminary caucus. Printed ballots

were supplied and all the machinery for securing the desired end was put in action. The other side, which has already polled twice the number of votes cast at the last meeting, was taken by surprise and made little preparation for so vigorous a campaign."

THE MEDICO-CHIRURGICAL COLLEGE of Philadelphia, at its Second Annual Commencement, on Thursday, March 26th, conferred the degree of Doctor in Medicine on ten candidates.

DR. FERDINAND RITTER VON ARLT, Professor of Ophthalmology in the University of Vienna, has had the Cross of the Order of Francis-Joseph conferred upon him by the Emperor, on account of his many valuable services in the profession.

A VICE-PRESIDENT OF THE AMERICAN MEDICAL ASSOCIATION ON ITS CODE.—*The Medical Record* publishes the following extract from the late Presidential address before the Minnesota State Medical Society of Dr. Alexander J. Stone, now Vice-President of the American Medical Association:

"The Code, since its final adoption, has apparently been laid upon the shelf by the side of the family Bible, to be treated with almost as much reverence, to be read quite as seldom, and to be quoted only when its provisions enable one to discipline a rival, or to exclude him from the benefits of professional affiliation. A judicial consideration of the Code forces a conclusion that much which it contains is gratuitous insult to the profession, and more, is rather calculated to amuse than to impress with respect to the mind of the layman. There is not a clause or sentence in the first two articles which is not absolutely true; but, should the self-evident truths contained in Article I. be held constantly before the physician, as if by nature he was a brute who was to be taught the ordinary laws of humanity; a fool who must be taught a wisdom in the management of his patients which instinct alone would inculcate; a knave who must be withheld from empiricism; or a man without the instincts of a gentleman? Granted that men enter the ranks of the profession to whom the epithets of 'fool,' 'knave,' or 'clown' apply, of what value are the platitudes concerning brotherly love, or of what good is a formulated code defining the relations of medical men to the public or to each other? Among gentlemen such a code is unnecessary; among pirates it only serves to foster a cathauling hostility; as between a gentleman and a pirate, any difficulty which may arise is not to be satisfactorily settled by a reference to any code, because the standpoints from which each looks at matters differ too widely—nor are the penalties which the code imposes such as to deter a real rascal, nor is that unsovereign body, the medical profession, able to enforce its laws rigorously."—*Med. Record*, March 31, 1883.

GOVERNMENT EXPERIMENTAL FARM FOR ANIMALS.—The Department of Agriculture has leased a piece of ground near the northeastern boundary line of Washington, to be used as an experimental farm and hospital in connection with investigations of diseases of animals. The grounds are being put in order, and buildings are being erected thereon. Dr. D. E. Salmon, who has for a number of years been employed by the Department in the investigation of diseases of cattle, swine, and poultry, will arrive in Washington about May 1st to take charge of the work. Dr. Salmon will bring with him a number of cattle and sheep, and the experiments will begin shortly after his arrival. The Pasteur system of inoculation will be adopted, with such additions and qualifications as have been suggested by Dr. Salmon's own discoveries while engaged in investigation at his farm near Asheville, N. C. The investigations now to be made will be on a much larger scale than any heretofore attempted by the Department, and will be conducted with the view of ascertaining the origin, causes and nature of the Texas cattle fever, pleuro-pneumonia, and hog and chicken cholera, together with means of preventing and curing these diseases.

JEFFERSON COLLEGE ALUMNI.—The annual meeting of the Alumni of the Jefferson Medical College was held on Saturday, March 31st, Professor S. D. Gross in the chair.

The Committee on the Gross Professorship of Pathological Anatomy, presented a report, stating that considerable progress was being made towards accomplishing the project.

The following officers were elected for the ensuing year: President, Samuel D. Gross; Vice-Presidents, Drs. Addinell Hewson, R. J. Levis, Ellwood Wilson, and W. W. Keen; Recording Secretary, Dr. Thomas H. Andrews; Corresponding Secretary, R. J. Dunglison; Treasurer, Dr. Nathan Hatfield.

LIFE-SAVING ON RAILROADS.—The Austrian Government Sanitary Council has prepared a set of regulations for life-saving on railways, and a guide to first help to those injured by accidents until the arrival of a physician. These have been sent to the several railway companies for examination and suggestions. Every conductor is to be provided with a leather case of bandages; a litter to be placed at every station and halfway between such stations as are more than nine miles apart; at every station a small case of surgical instruments, of specified kinds, is to be kept; a larger supply of instruments and bandages at stations fifty and sixty miles apart, where there are reserve locomotives, which locomotives are to pick up the cars and litters on the way to an accident. Still more complete provision is to be made at important stations where there are many servants. For every two hundred and fifty or three hundred miles of road, at an engine house, there must be a hospital car, of a specified pattern, used for carrying sick and wounded in time of war. The "guide to first aid to the injured" prescribes how the servants or others shall carry the victims of accidents, how place them, treat their wounds, apply bandages, transport them in the cars, and what to do in case of sudden illness.—*Sanitary Engineer*, March 15, 1883.

THE PUBLIC HEALTH IN CONNECTICUT.—The Secretary of the State Board of Health reports that pneumonia and acute diseases of the lungs take the leading place among the causes of death in February. The epidemic of scarlet fever, while subsiding in the cities first attacked, is extending into the State extensively, except the southwestern part, where measles and whooping-cough are more prevalent. Measles is also prevalent in some parts of Litchfield County. The epidemic of scarlet fever was quite severe in Hartford, causing sixty deaths since October. Diphtheria has been nearly as fatal, but shows signs of decrease.

There has been a peculiar type of disease in the State, which, as far as can be learned, appeared for the first time in New England this winter. It is called winter cholera. It was prevalent in Providence, R. I., and followed shortly after in Waterbury. Last year there were accounts of it in certain western cities. It appears in an epidemic form. No local cause has yet been found to be even usually associated with it. The disease is wrongly called cholera, for it does not produce death directly, and very rarely, if ever, indirectly. The symptoms are profuse watery discharges which

evidently come from the blood; severe cramps; a pinched, sunken countenance, that is, the eyes appear sunken. After well established, there is a cold stage, the temperature falling to ninety-seven degrees, and cases are reported as low as ninety-six degress; the average temperature in health being ninety-eight and one half degrees. The average duration is four days. The symptoms somewhat resemble those of cholera, hence the name. Thus far, cities only have been attacked. The Board of Health has learned of no genuine case originating in the country. In most places the cases have been mainly among the prosperous, well-to-do citizens. In only one epidemic has a cause been assigned that was at all probable. There the poor, living in tenement-houses, only were seized, and suetine, or rather lard butter, which was poorly prepared, was charged as the cause; but this appears hardly probable, as no such association has been since found to exist. It is a peculiar disease, but easily controlled by treatment. A few cases similar to the winter cholera are reported from Cheshire.

The connection between foul air and pneumonia has been shown repeatedly. Persons coming out of ill-ventilated rooms, after breathing polluted air, which has already induced some congestion of the lungs by its irritating qualities, readily take cold, and a congestion which induces inflammation is easily excited. It is well known that there is a type of pneumonia induced by foul, polluted air, even without subsequent exposure to the colder air out of doors. Sewer gases from bad plumbing, or imperfect drains, contaminated air from polluted soil around the house, by heaps of decaying filth or saturation by kitchen and other refuse, if drawn into the house or habitually breathed, so depress the system and lower vitality that disease is readily engrafted.

In New Haven measles and whooping-cough have been more prominent, although cases of scarlet fever appeared during the month. In Cheshire, New Canaan, Thomaston, Plainville, and a few places widely separated, measles is quite prevalent, while bronchitis, influenza, catarrhal diseases, and pneumonia prevail generally.

The sanitary history of the year compares thus far unfavorably with its predecessor, due mainly to climatic causes. A few cases of malaria are reported, some fatal. Unless it is supposed that the virus lies dormant, we have cases originating at all seasons, but less often in winter and in cold weather.

HEALTH IN MICHIGAN.—Reports to the State Board of Health, for the week ending March 24, 1883, indicate that erysipelas, inflammation of the bowels, and bronchitis have increased, and that scarlet fever has decreased in area of prevalence.

Including reports by regular observers and by others, diphtheria was reported, during the week ending March 24, and since, at seventeen places, scarlet fever and measles each at sixteen places, and smallpox at one place.

OBITUARY RECORD.—Died, at Detroit, on the 8th of March, D. O. FARRAND, M.D., in the forty-fifth year of his age.

Dr. Farrand was born in Ann Arbor, Mich., in 1838, and pursued his medical studies at the College of Physicians and Surgeons, New York, from which institution he received his degree of M.D., in 1863. He then entered the regular army as assistant surgeon, but resigned at the close of the war, and settled in Detroit, where he rapidly acquired a large practice and prominence as a citizen. He was a member of the Detroit Board of Health, Surgeon to Hooper's Hospital, Surgeon of the Detroit Metropolitan Police, Surgeon-in-Chief of the Michigan Central Railroad, and Chief Medical Examiner of the Michigan Mutual Life Insurance Company.

——At Tübingen, on March 19th, aged seventy-one years, VICTOR V. BRUNS, the distinguished surgeon and Director of the Department of Clinical Surgery at the University of Tübingen. Prof. v. Bruns was well known by his contributions to the surgery of the larynx, as well as by a text-book on surgery, a work on the laryngoscope, and papers on nasal polypi.

——At Paris, on March 20th, 1883, of diabetes complicated with albuminuria, CHARLES-ERNEST LASÈGUE, Professor of Clinical Medicine in the Faculty of Medicine of Paris, in the 67th year of his age.

Prof. Lasègue was one of the editors of the *Archives Générales de Médecine*, and enjoyed a high reputation from his scientific *critiques* in that journal, and his works on Mental Alienation. In 1867, he succeeded Andral in the Chair of General Pathology, for which he was ably fitted, having been two years previously, in the Chair of Clinical Medicine at La Pitié. At the Palais, where he often appeared as an expert or a witness, he had made considerable reputation by his humoristic eloquence.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 26 TO APRIL 2, 1883.

BARNETT, RICHARDS, *Captain and Assistant Surgeon.*—To proceed to Fort Adams, Rhode Island, and report to the commanding officer for duty at that post.—*Par. 1, S. O. 51, Department of the East, March* 28, 1883.

CRONKHITE, HENRY M., *Captain and Assistant Surgeon.*—Relieved from duty at Fort McKinney, Wyoming Territory, and assigned to duty as post surgeon at Fort Fred. Steele, Wyoming Territory.—*S. O. 31, Department of the Platte, March* 22, 1883.

DE LOFFRE, AUGUSTUS A., *Captain and Assistant Surgeon.*—Granted leave of absence for three months.—*Par. 3, S. O. 71, A. G. O., March* 27, 1883.

LORING, L. Y., *Captain and Assistant Surgeon.*—To proceed without delay to Fort Schuyler, New York Harbor, and report to the commanding officer for duty as post surgeon.—*Par. 2, S. O. 51, Department of the East, March* 28, 1883.

MOSELEY, EDWARD B., *Captain and Assistant Surgeon.*—To report in person to the president of the Army Medical Examining Board, in New York City, for examination for promotion, and npon completion to return to proper station.—*Par. 3, S. O. 70, A. G. O., March* 26, 1883.

PAULDING, H. O., *Captain and Assistant Surgeon.*—Relieved from duty at Fort Laramie, Wyoming Territory, and assigned to duty at Fort Sidney, Nebraska.—*S. O. 31, Department of the Platte, March* 22, 1883.

SKINNER, JOHN O., *Captain and Assistant Surgeon.*—To report in person to the president of the Army Medical Examining Board, in New York City, for examination for promotion, and upon completion to return to proper station.—*Par. 3, S. O. 70, A. G. O., March* 26, 1883.

TAYLOR MARCUS E., *Captain and Assistant Surgeon.*—To report in person to the president of the Army Medical Examining Board, in New York City, for examination for promotion, and upon completion to return to proper station.—*Par. 3, S. O. 70, A. G. O., March* 26, 1883.

TURRILL, HENRY S., *Captain and Assistant Surgeon.*—Relieved from duty at Fort Fred. Steele, Wyoming Territory, and assigned to duty as post surgeon at Fort McKinney, Wyoming Territory.—*S. O. 31, Department of the Platte, March* 22, 1883.

THE MEDICAL NEWS *will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.*

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